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United States Marine Corps

Concepts and Issues

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United States Marine Corps

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Marines:

Foundation for the 21st Century

Concepts and Issues provides a brief description of how the Marine Corps is organized, what particular contributions the Marines make to our national defense, and those steps taken by the senior leadership of the Department of the Navy to ensure that our naval expeditionary forces continue to be prepared to meet the challenges of the 21st Century.

This is the ninth edition of **Concepts and Issues**. It has been substantially reorganized from previous editions. Intended for a wide audience, the chapters have been arranged into four major areas for easier access by each audience. Chapter One provides a basic description of the Marine Corps and the substantial relevance of these forces today. Chapter Two provides concise positions on a series of issues relative to our national security and the role played by the Marine Corps in preserving peace around the world. Chapters Three and Four provide brief descriptions of Marine Corps programs and the resources required to maintain and strengthen America's Corps of Marines to confront the most likely threats through the rest of this decade.

As the international security picture evolves in the next few years, the capability to project and sustain naval forces over great distances from our shores will remain a critical component of our national strategy. Maritime forces are crucial to preserving and defending American lives and interests around the globe. Maintaining the naval forces necessary for our Nation's security requires the informed and reasoned efforts of the American people, our elected Congressional representatives, and our national leadership. **Concepts and Issues** is a concise summary document designed to convey both the state of our Corps today and our vision for the future. With the foregoing in mind, the foundation of America's expeditionary force-in-readiness for the 21st Century is presented.



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Prologue

Over the past year, we have witnessed the consequences of a dynamic period in history; a period characterized by dramatic changes in the global security environment and sweeping new challenges to national security.

The demonstrated readiness and versatility of our Marine Air-Ground Task Forces enables the Navy-Marine Corps team to respond to the spectrum of worldwide crises. Marine forces existing today stand ready and able to promote regional stability through capabilities ranging from forward presence to Joint and combined operations. This capacity to support our National Command Authorities and security interests was ably demonstrated in crisis response operations in Liberia and Somalia, and the major expeditionary campaign **Operation Desert Shield/Desert Storm**.

Whether these forces will be as prepared and poised to answer America's call tomorrow will be the result of how we respond to the emerging challenges of the 21st century. It is imperative that we learn from the past and look towards the future. We must continue to develop both a strategy and the corresponding tools to implement it that serve our national interests over the long term.

The war in the Gulf has been the focus of our attention for many months. We must now turn to the issue of designing a comprehensive strategy to promote worldwide stability and nurture a favorable political and economic environment conducive to our national interests. We must then determine what kind of military capabilities our great Nation needs as we approach the 21st century.

The manner in which we approach this difficult issue in the upcoming budget will have major implications for our national security for the next generation. Many of the decisions facing us will directly impact the kind of weapons systems and platforms that our forces will employ for the next 20 to 30 years. The dialogue surrounding these decisions is going on in the aftermath of a major regional contingency, dramatic uncertainty in Europe and the Middle East, and the darkening cloud of fiscal reality.

However, we cannot take a short term view, or one derived from a purely fiscal orientation, if we are to pursue an overarching grand strategy that leads our Nation into a stable and secure world.

In a review of our national defense needs, several major issues are raised. These include the following subjects:

- National Military Strategy and Capabilities
- Force Reductions
- Strategic Mobility and Amphibious Lift
- Modernization and Technology

National Military Strategy and Capabilities

As global instability increases and resources become increasingly scarce, our national military capabilities are being restructured. Many of the capabilities needed for maintaining peace and stability exist today. The crucial issue is determining what must be preserved; what must be abandoned; and what must be expanded. The Armed Services must strive to complement one another's capabilities and avoid unnecessary duplication. Over the past four decades, each Service provided special capabilities to our National Military Strategy. While post-Cold War force reductions are inevitable, proven Service unique capabilities should be preserved. Joint and combined operations provide the structure for combining the Services' complementary capabilities into a formidable national military capability. While debate among proponents of the maritime, continental, and aerospace strategies is healthy, primary focus must be on combining the most useful elements of these competing views into an integrated military strategy.

Future strategy and force structures must promote stability, foster collective security among our allies, and hedge against the uncertainty of the present transition period for the remainder of this century. The future will place greater emphasis on Joint and combined operations to capitalize on existing complementary capabilities within the Services. Each Service should continue to focus on its respective roles and missions, and the unique capabilities and institutional ethos derived from these missions, while enhancing their joint interoperability.

Future adjustments to national military capabilities should seek to preserve and integrate the most effective elements of Service capabilities. The continental, maritime, and aerospace strategies and forces must be integrated to capitalize on existing combat power and the synergism of Joint and combined operations. We should strive to provide the most cost effective defense for the Nation.

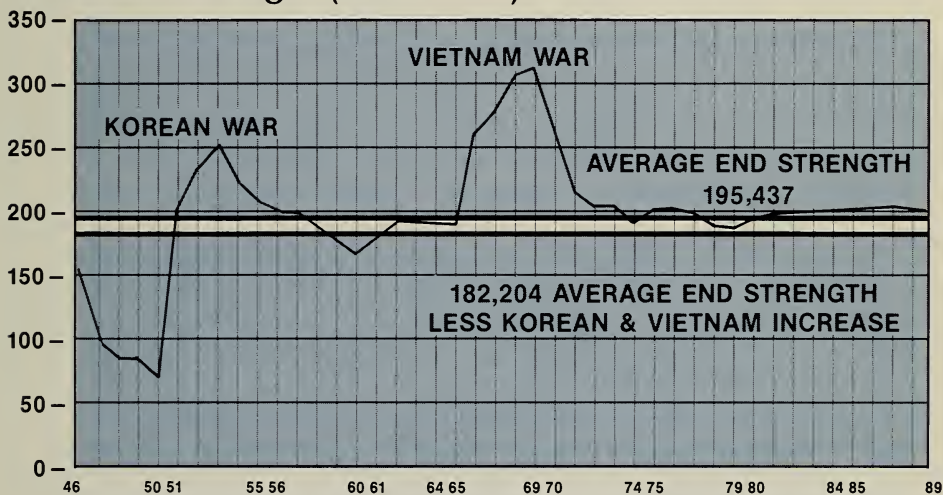
Force Reductions

Fiscal realities dictate force reductions throughout the Department of Defense. Large end strength reductions will have a negative effect on relevant and proven Marine Corps capabilities and strain our ability to credibly man the 3 Division/3 Wing structure stipulated in Title 10. We will be increasingly challenged to maintain the wide balance of capabilities required to counter sudden, unexpected geopolitical challenges and newly emerging threats.

While the budgetary trend is clear, the nature of the security threat is uncertain. Therefore, the challenge facing the Nation is to preserve those forces that can deter aggression and are mobile, versatile, and available to respond to a wide range of taskings. There are clear increased risks to a 25 percent reduction in our naval forces. Smaller forces will have less balance and surge capabilities and will be less able to respond in a timely manner.

The ability of the Marine Corps to contribute to the Nation's security and to spearhead operations is directly related to its size. Because the Marine Corps invests so heavily in the quality of its manpower, fiscal reductions which translate into a decrease in the number of U.S. Marines will directly impact combat capability.

USMC End Strength (1946–1989)



The Marine Corps, end strength has averaged about 182,200 Marines over the past forty years, which is the minimum level needed to execute our legislated roles and missions.

A significantly smaller Marine Corps will not provide the expeditionary capabilities required by the Nation in these uncertain times. During the past year, the Marine Corps has responded to a major regional contingency while simultaneously responding to two lesser crises. This response could not have been achieved below our current force levels.

The current budget request includes reductions in our end strength; we are losing armor and artillery battalions, numerous infantry units, and several aviation squadrons. Continued reductions pose grave risks for the country in terms of reduced responsiveness and reduced forward presence at a time when overseas bases and overflight rights are becoming increasingly sensitive issues. **Continued reduction over time will fracture our balanced air-ground-logistics team and degrade our ability to rapidly respond and support a stability-oriented strategy.**

It would be premature to undertake a major restructuring of naval expeditionary capabilities, a principal element of our contingency response. Reductions may be necessary, in light of budget constraints. However, reduction plans should not be based on benign assumptions about the world security environment nor should these plans assume that a multi-polar world will be a more stable and predictable place in which to live.

The key to stability is influence, and the key to influence is presence. Decreasing force levels will reduce our ability to provide sustained presence when and where needed throughout the globe. Adequate force levels are required to maintain our forward presence and provide the stability necessary to pursue national interests.

Strategic Mobility and Amphibious Lift

Our ability to project influence and military forces over great distances is dependent upon adequate strategic mobility resources. Intrinsic to the delivery of a sustained and credible forcible entry capability is sufficient amphibious lift. Amphibious forces provide an unmatched forcible entry capability, and incorporate significant organic firepower and sustainability.

The Marine Corps views with concern impending reductions to the Nation's amphibious shipping which is so vital to our global commitments. Between Fiscal Years 1996 and 2008, 80 percent of present amphibious shipping faces obsolescence, and future shipbuilding plans are in decline. Maintaining the capability of these valuable assets will require a realistic, long-range investment plan.

The Marine Corps provides the Nation with the most formidable forcible entry capability in the world. This capability is based on ready, trained forces and the availability of amphibious shipping. Preserving this valuable capability is a necessity for a maritime nation. Reductions to the current amphibious force levels should be viewed with concern.

Modernization and Technology

Our Nation has witnessed the efficacy of modern and technologically advanced power projection capabilities in implementing national security objectives. Our forces must continue to evolve to remain effective and responsive to requirements across the wide spectrum of potential conflicts.

Marine Aviation modernization objectives include enhancing combat effectiveness; further developing night, over-the-horizon and adverse weather capabilities; reducing the number of different aircraft in the inventory; achieving an all vertical/short-takeoff and landing (V/STOL) force; increasing supportability, reliability, and maintainability of all aircraft; and reducing dependency on strategic lift.

Replacement of the current medium-lift assault fleet, which is currently 25-years old, is our number one aviation priority. The replacement aircraft must provide a survivable and capable platform with the avionics and night-fighting systems needed to survive on the modern battlefield.

Helicopters will require increased payloads, range, and survivability to successfully conduct military operations across the spectrum of conflict. Employing helicopters with present design and system capabilities will lock us into platforms that will not be survivable against the threat of the next decade. Most conventional helicopters are using materials and characteristics that were designed and built over 20 years ago, and have little prospect for further development or improvement. We continue to pursue evolutionary enhancements to improve our capabilities, relying on proven technology to provide our forces with the necessary survivability and mobility.

The proliferation of sophisticated weapons that threaten the sea and land forces of amphibious operations have led the Navy/Marine Corps team to develop Over-The-Horizon (OTH) tactics and doctrine. This development will preserve and enhance the Nation's force projection ability. OTH operations provide for amphibious assaults to be launched further offshore than currently attempted, providing greater security, flexibility, and speed in conducting these operations while reducing the risk to our forces.

Technological initiatives to support the concept are currently under development. These initiatives include the Advanced Amphibious Assault and the Medium Lift Replacement programs. **These requirements must be addressed to counter future threats and provide a credible forcible entry into the 21st century.**

Summary

The Marine Corps has maintained a global focus over the past several decades in response to our legislated mission to provide this Nation with a combined arms “force in readiness.” The wisdom of our national leadership was proven on many occasions and has been crucial to successful execution of our national strategy and the achievement of security interests in the past year. Even in a period of declining defense resources, maintaining this proven capability is in the Nation’s best interests.

America’s Marines remain capable of deployment anywhere around the world and are ready to execute assigned global missions whenever and wherever required. In President Bush’s words, we stand prepared to do “the hard work of freedom.” While the future is uncertain, this Nation will always depend upon the professionalism and esprit of her Corps of Marines. We will take the resources made available to us and do what must be done.

Chapter 1

Marines Today – The Foundation for the 21st Century

The Persian Gulf crisis highlights the fragile nature of peace and stability in regions where our Nation has vital interests and friends. While the events in the Middle East could not have been predicted in advance, **Operation Desert Storm** demonstrates the threats and instability we must be prepared to face. For the past decade this Nation has invested in a modern Navy and Marine Corps. The performance of the Navy-Marine Corps team validates the expenditures authorized by Congress, as well as the responsive power projection forces envisioned by our national leadership.

As we leave the bi-polar period of containment, we face many challenges. Resurgent nationalism appears poised to replace communism as the destabilizing ideology of the 1990's. In other regions, long simmering rivalries, poverty, drug trafficking, religious intolerance, and ethnic animosities abound. Regional conflicts can quickly erupt from such instabilities and challenge international peace and our global economy.



Navy Times

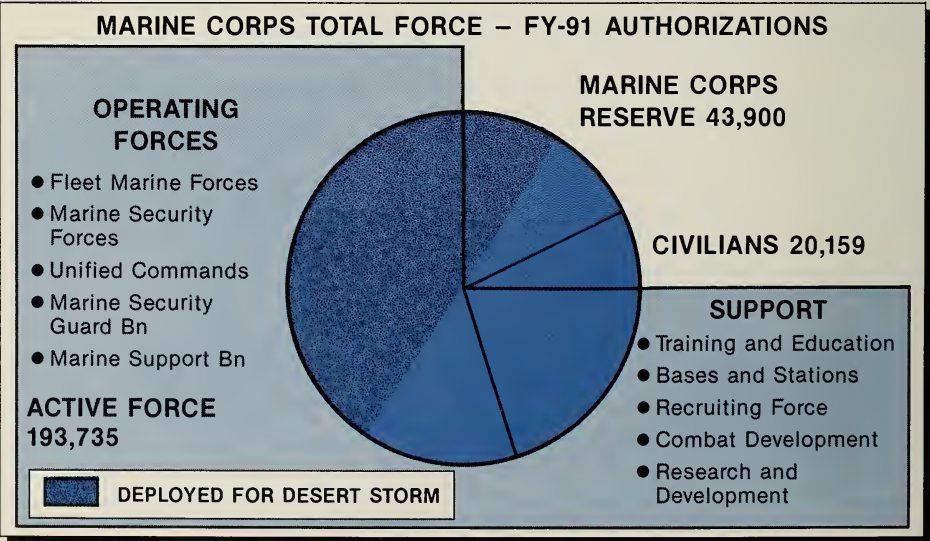
It is this legislation that prescribes both the missions and the structure of the Marine Corps. In accordance with this public law, the Marine Corps is structured as 3 Divisions and 3 Aircraft Wings, with the requisite combat service support to support them.

The intent of the legislation was to ensure that the Nation has a strong “force in readiness” to respond to crises short of general war. This highly ready force, in combination with the mobility assets provided by the U.S. Navy and Air Force, would be poised to respond to a wide variety of contingencies and to deter aggression around the globe. **The powerful forces deployed in the Persian Gulf were developed to support these missions.**

In pursuing more efficient and effective means of achieving its responsibilities, the Marine Corps has a long tradition of innovation, of looking to the future, anticipating security needs and planning for the realities of future battlefields. It was this mind set that led us to emphasize readiness and become prime contributors to the drafting of amphibious doctrine, the emergence of the helicopter, the acquisition of V/STOL aircraft, the establishment of maritime pre-positioning forces, the creation of an over-the-horizon amphibious assault concept, and numerous other innovative concepts. In keeping with this tradition, we are looking ahead now to the emerging era with its radically different international security environment.

Figure 1-1 depicts the entire Marine Corps Total Force including the Selected Marine Corps Reserve and our civilian personnel resources. There is a direct relationship between the size of the Marine Corps and the contribution made to our national defense. Approximately 80 percent of the operating forces and more than 50 percent of the Reserves are currently deployed outside of the Continental United States. This includes 29 of our 33 infantry battalions and 60 of our 76 aviation squadrons.

FIGURE 1-1:



Large scale deployments, operations and training exercises with allies are part of our training and presence requirements in peacetime as well. More than 30 percent of our operating forces are forward deployed during peacetime, which predicates a high operational tempo and a corresponding CONUS-based rotation base. It is anticipated that the requirement for forward deployed forces to maintain stability will continue. Future reductions should consider the operational relevance of sea-based expeditionary forces and the contributions made by Marines and Sailors that directly support our national security strategy.



How the Marines are Organized

The overall organization of the Marine Corps divides into two broad categories: operating forces and the supporting establishment. The operating forces, considered the heart of the Marine Corps, constitute the fighting power available to the warfighting CINCs. Major elements include the Fleet Marine Forces, Marine Corps Security Forces at naval installations and shipboard detachments, and the Marine Security Guard Battalion with its detachments at embassies and consulates around the globe. Whether in time of peace or war, about **seventy percent of all active duty Marines are assigned to the operating forces**, an extremely efficient "tooth-to-tail ratio."

The Supporting Establishment includes Headquarters Marine Corps, various bases and air stations, training activities and formal schools, the recruiting force, Marine Corps Logistics Bases, the Marine Corps Combat Development Command (MCCDC), and Marine Corps Research, Development, and Acquisition Command (MCRDAC). The Supporting Establishment is very lean but its contributions are vital to the overall combat readiness of the Marine Corps.

Operating Forces made available to the CINCs are provided from Fleet Marine Force, Atlantic (FMFLant) and Fleet Marine Force, Pacific (FMFPac). Both of these commands are closely aligned with their respective Fleet CINC and maintain highly trained forces prepared for global taskings in every clime and place.

FIGURE 1-2:



The major combat force in FMFLant is II Marine Expeditionary Force or II MEF, located in the Carolinas. II MEF forces train at sites throughout the world, preparing for potential taskings such as Europe, the Middle East, the west coast of Africa, and along the South American coast. II MEF continually maintains a forward deployed Marine Expeditionary Unit (Special Operations Capable) or MEU(SOC) in the Mediterranean that is highly trained and prepared for any potential contingencies.

FMFPac is composed of two MEF's. I MEF is based in California. It provides a forward-deployed MEU(SOC) for service as an element of the Seventh Fleet. The other major combat force in FMFPac is III MEF which is forward based in the Pacific, with crucial responsibilities for stability operations throughout that region. All of these forces are oriented for global missions and can be quickly dispatched to meet our global responsibilities.

In addition to our active forces, force augmentation is made possible by the activation of the Marine Corps Reserve. The Marine Corps Reserve, like the active forces, is comprised of a combined arms force with balanced ground, aviation, and support assets. The major commands include the 4th Marine Division, the 4th Marine Aircraft Wing, and the 4th Force Service Support Group (FSSG). The 4th FSSG in Atlanta, GA provides combat service support to the 4th Division/Wing team. Units of these commands are located in 194 training centers in 46 States, Puerto Rico, and the District of Columbia.

Over the past several years, the Marine Corps Reserve has been integrated with their active counterparts in our Total Force. The Reserve provides individuals and units to augment and reinforce active capabilities whenever needed. The Selected Marine Corps Reserve performed extremely well in the Middle East crisis.

Marine Air-Ground Task Force (MAGTF) Organization

The Marine Corps task organizes for combat from its statutory Division/Wing structure by forming its forces into integrated, combined arms MAGTFs. They are task organized and specifically tailored to accomplish an assigned mission and for rapid deployment by airlift and/or sealift.

The Marine Corps organization for combat exploits the synergy inherent in closely integrated air and ground operations. Our forces are trained and prepared to be deployed to any part of the world on short notice. The MAGTF provides the combatant commander unique flexibility for an extraordinary range of options from forcible entry amphibious operations to a wide variety of stability and limited-objective operations.

Characteristics of the MAGTF

The MAGTF brings to the battlefield a combined arms force with the following characteristics.

- Task organized to accomplish specific missions or to provide maximum flexibility.
- Fully integrated air-ground-logistics task force.
- Self-sustaining, through organic and pre-positioned supplies and equipment.
- Ready for expeditionary service.
- Capable of forcible entry.
- Special operations capable.
- Able to combine or “composite” with other MAGTFs to quickly build in size.
- Strategically mobile.
- Interoperable with joint and allied forces.
- Trained for all regions/environments.

Types of MAGTF Organizations

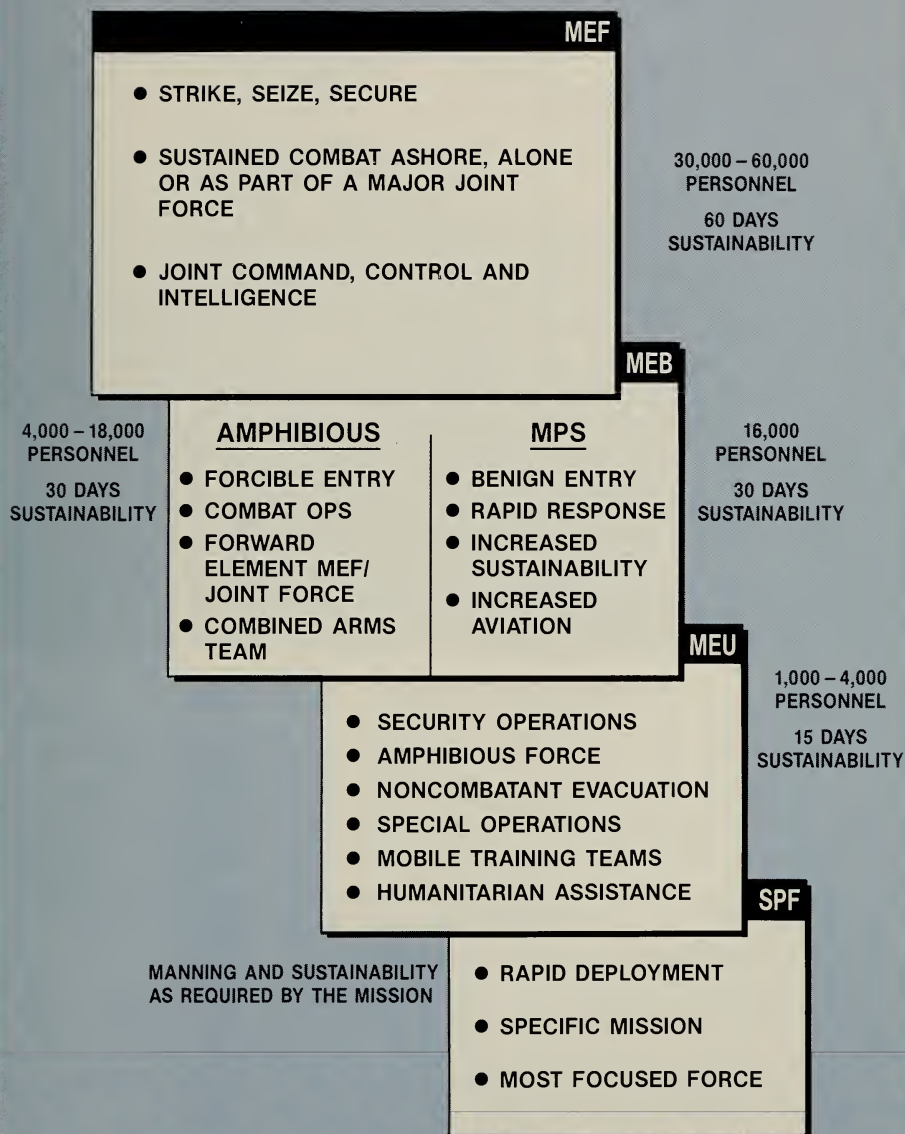
There are a variety of types of MAGTFs that may be formed in support of national strategy and combatant CINC crisis response requirements. **The Marine Expeditionary Force (MEF) is the Corps' principal organization for combat and peacetime readiness, and is formed from the legislated Division and Aircraft Wing team.** These MEFs provide a reservoir of integrated combined arms combat power that can be task organized to simultaneously execute a wide range of global missions. The MAGTFs are mission tailored and range in size from very powerful MEFs, capable of prosecuting operational campaigns against the most capable potential threat; through rapidly deployable and employable Marine Expeditionary Brigades; routinely forward-deployed Marine Expeditionary Units (MEUs); to small special purpose forces (SPFs) formed for specific missions or contingencies.

A MAGTF, regardless of its size, will include four major components:

- Command Element (CE)
- Ground Combat Element (GCE)
- Aviation Combat Element (ACE)
- Combat Service Support Element (CSSE)

FIGURE 1-3:

MAGTF CAPABILITIES THE CINCs FORCE IN READINESS



These general purpose forces, through task organization and diversified training for special operations and low-intensity conflict, can provide fleet and Unified CINCs great versatility and balance in a single force. They may be weighted toward ground, air, or logistics action, and they can be sized appropriately for the mission. This provides the combatant CINCs a flexible, self-contained force, ideal for independent operations or as part of a joint task force. They possess the requisite command, control and intelligence assets to also serve as joint task force headquarters.

Operational Initiatives

MAGTF Special Operations Capable (SOC)

MAGTF SOC is a special operations capable general purpose force oriented to crisis response. The focus of this capability is optimizing combat power for specific high-risk tasks. It is attained through progressive enhancement to individual and unit training utilizing specialized equipment. The fully developed SOC capability allows a MAGTF to execute a wide range of missions, including selected maritime special operations.

At a minimum, Marine forces deployed aboard naval shipping or based in CONUS, can conduct the following maritime special operations within six hours of receipt of a warning order:

- Close-quarter battle.
- In extremis hostage rescue.
- Specialized breaching.
- Reconnaissance and surveillance.
- Tactical recovery of aircraft and personnel.
- Seizure or destruction of offshore facilities (e.g., gas or oil platforms).

The level of special operations capability will vary with the type, size, and configuration of the Marine unit, from the capability that would be found within forward-deployed MEUs to the capability resident in the MEF, the most capable MAGTF. All organizations retain the ability to respond rapidly to a broad range of expeditionary missions in conjunction with their special operations capability.

Maritime Prepositioning Forces (MPF)

MPF gives the unified CINCs a new dimension in mobility, readiness, and global responsiveness. The MPF program involves a total of 13 ships, organized in three squadrons. MPSRON-1 operates in the Eastern Atlantic, MPSRON-2 in the Indian Ocean, and MPSRON-3 in the Western Pacific. The MPF reduces MAGTF response time from weeks to days by prepositioning the bulk of the equipment and 30 days of supplies for a 16,000-man MEB aboard specially designed, strategically deployed ships.

The MEB's personnel and selected equipment can be airlifted quickly using roughly 250 airlift sorties to an objective area to unite with its equipment at a secure site. Equipment and supplies can also be used to support smaller MAGTFs.



As graphically demonstrated in **Operation Desert Shield**, MPFs are integral to the rapid deployment of credible combat power. MPF program flexibility is being increased through selective and innovative loading plans and via the development of MPF deployment options for less than MEB-sized tasks. We are also developing specific capability packages tied to supporting unique mission requirements.

Force Modules for CINCs Contingency

The Marine Corps has developed an array of improved deployment and force closure packages known as Deterrent Force Modules (DFMs) and Crisis Action Modules or CAMS. This concept blends the traditional three deployment options—Air Contingency Forces, Amphibious Ready Forces, and Maritime Prepositioning Forces—in a building block manner. As a result, a more dynamic range of mission-tailored forces becomes possible.

These DFM and CAMS do not replace any of the basic war-fighting organizations; Marine forces have always been designed as task-organized force modules of combined arms. This deployment concept maximizes all available strategic lift assets; including airlift, sealift, and pre-positioned means, to quickly place at the CINCs' disposal the traditional strengths of a balanced Marine force; namely, its strategic deployment ability and expeditionary character, firepower, integrated air, tactical mobility, and sustainability.

Counternarcotics/Riverine Forces

The Marine Corps has been actively involved in training, equipping, and providing operational support to host nations and drug law enforcement agencies in their efforts to reduce the supply of illicit drugs at the source.

The Marine Corps' of Colombia, Peru, Venezuela, Guatemala, Ecuador, and Argentina all have designated counternarcotics missions. The primary focus of these Marine forces is control of river networks to combat the movement of precursor chemicals and coca, and to destroy the coca processing labs located along the rivers. The development of a riverine warfare capability is integral to the drug eradication effort as well as providing mobility in these countries where much transportation is water dependent.



To provide this capability, the U.S. Marine Corps and the U.S. Navy are enhancing and updating their own riverine capability. During 1990, the Marine Corps purchased six River Assault Craft for test and evaluation. These craft will join our Rigid Raiding Craft and Combat Rubber Raid Craft to form the nucleus of a mobile riverine force. The ability to provide instruction and conduct training with Latin American nations on similar equipment is essential for continuing to build a credible riverine capability.

Over the Horizon (OTH) Assault Operations

OTH tactics and doctrine have been developed to give an expanded dimension of capability and survivability to amphibious forces. OTH is an operational maneuver that includes coordinated vertical and surface assaults. These can occur simultaneously or sequentially, based on the situation, and either can represent the focus of effort. As the situation develops, the MAGTF commander can shift the focus, redirecting the weight of his combat power to that effort which offers the greatest potential for success.

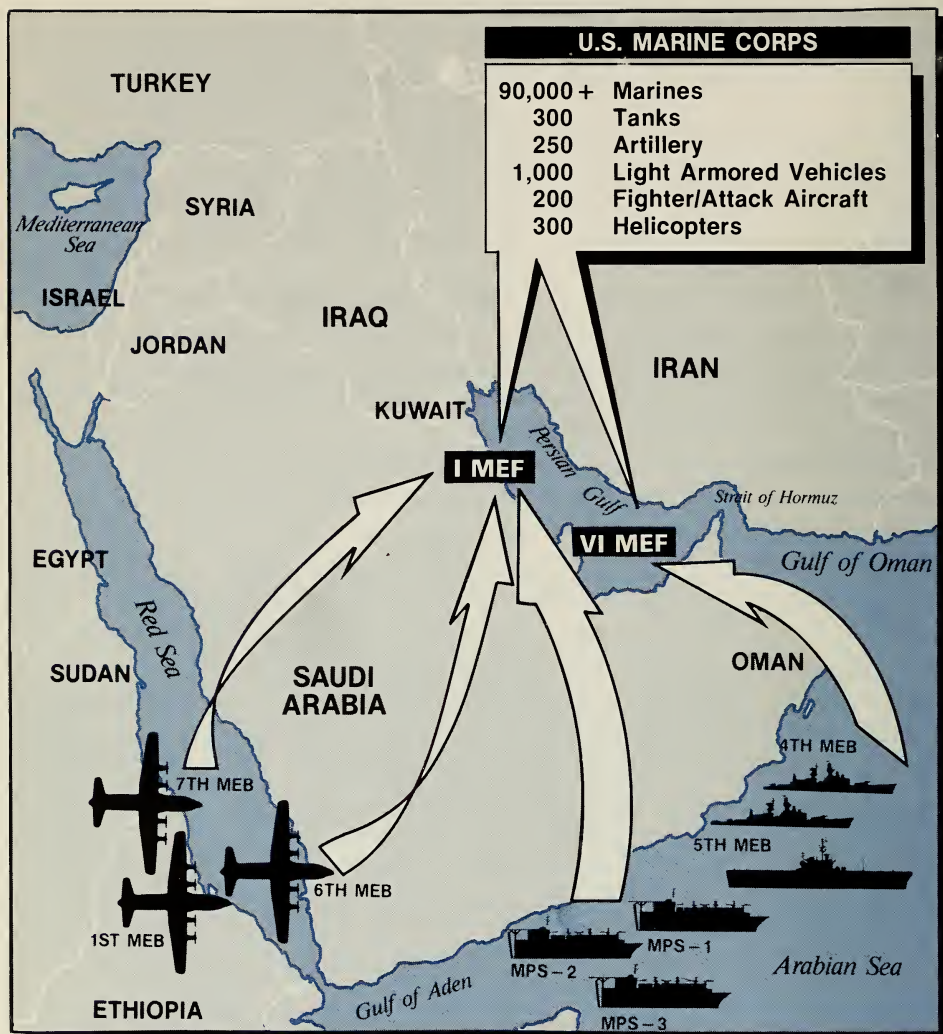
Both the vertical assault force and the surface assault force attack with self-contained, combined arms teams that penetrate deeply to get beyond the enemy's prepared defenses, making them irrelevant. Rapid movement off the beach enhances survivability and reduces target exposure. OTH will stress tactical mobility, command and control, intelligence collection, fire support, countermine warfare, and force sustainment. These requirements are fundamental to the successful prosecution of power projection missions.



Current Operations/Demonstrated Capability

The capabilities of the Navy-Marine Corps team have never been so clearly demonstrated as over the past 6 months. The crisis in the Gulf, and the evacuation operations in Liberia and Somalia, have become just the latest examples of the Navy-Marine Corps team's flexible crisis response.

As specific examples, in **Operation Desert Shield** a potent Marine force was deployed via airlift and united with pre-positioned equipment in a matter of days in response to Iraq's invasion of Kuwait. This force has continued to develop into both powerful land-based mechanized forces arrayed against Iraq and mobile amphibious forces threatening the Iraq and Kuwaiti coastlines.



Drawing upon the combined assets of the forces assigned to both the Atlantic and Pacific commands, as well as our Reserves, two task organized MEFs were committed to **Operation Desert Storm**. I MEF is the tailored combined arms force that is ashore, and because of its organization and size is essentially a Marine Expeditionary Corps. It is comprised of the 1st and 2d Marine Divisions (Reinforced), the 3d Marine Aircraft Wing (Reinforced), and the 1st and 2d Force Service Support Groups, four naval construction battalions and an Army armored brigade.

This force was quickly formed by the compositing of our MPF squadrons. At this time, all three MPF squadrons are supporting **Operation Desert Storm**. Their performance validates the effort and resources devoted to the MPF concept over the past decade.

Meanwhile, elements of II MEF, based out of Camp Lejeune, left the East Coast of the U.S. aboard amphibious shipping for deployment to the Gulf region. These forces were augmented by an amphibious force deployed from the west coast. These forces have been composited into VI MEF which was the amphibious force available to the CINC to conduct amphibious operations in support of the campaign to liberate Kuwait if deemed necessary.

We provided powerful MEFs in support of CENTCOM. These forces began their employment immediately upon receipt of orders and provided the first credible and sustainable combat power available to the CINC. In all, there were over 90,000 Marines in the region supporting CENTCOM.

Throughout this period of expeditionary force build up, while world attention was focused on Kuwait, Marines continued their global mission by simultaneously responding to other emerging requirements. During **Operation Sharp Edge** in Liberia, Marine forces assisted in the evacuation of 2,600 people including 330 U.S. civilians, and maintained a seven-month presence off the coast.

In early January of this year, U.S. naval forces were ordered to respond to an emergency in Mogadishu, the capital of Somalia. Using their highly developed and inherent special operations capabilities, these forces conducted a complex series of night maneuvers to bolster the security of the U.S. embassy and conduct an evacuation of innocent personnel. Some 263 people, including 72 women and 47 children were safely extricated. A total of 11 ambassadors, including the representative of the USSR, were rescued in this evacuation. Once again, the unique employment characteristics of the Navy-Marine Corps team came to the front.

These crises exhibit the heavy reliance our national leadership places upon forward deployed naval forces as well as the broad utility of sea-based expeditionary forces. Despite the end of the Cold War, there is a continued need for flexible and forward deployed naval expeditionary forces to maintain regional stability and to respond to threats that exist where we have no permanent presence.

Conclusion – The Foundation for the 21st Century

The Marine Corps is and will continue to be prepared to respond immediately to the Nation's call, whenever and wherever needed. The Corps of the last decade was modernized and organized to prepare for the most probable conflicts of the 21st century. MAGTFs have been enhanced for use in incursions short of general war, and are prepared to contribute across the full spectrum of violence with our Total Force. We are on a solid foundation as we approach the new millennium.

The Navy-Marine Corps team has prepared for the future by structuring, training, and equipping to enhance its ability to project power ashore where and when needed. Maintaining these sea-based forces is necessary given the geographic, political and technological challenges facing us. Flexible, sea-based, expeditionary forces provide our Nation with the capability dictated by the challenges of the 21st century. Naval expeditionary forces will continue to provide the most responsive and versatile crisis response option. As the world political and economic picture evolves, the ability to project and sustain expeditionary forces over great distances will continue to increase in value.

The events of the past few years in Panama, the Philippines, Liberia, Somalia and the Persian Gulf underscore how quickly challenges can emerge and how difficult it is to influence events at a time and place of our choosing. As our access to overseas bases becomes more restricted, **power and influence projected from the sea increases in importance.** Maintaining this current capability, even in an era of constrained fiscal resources, provides the Nation with vital alternatives in the form of tested, cost effective, and versatile forces.

The Marine Corps will continue to provide a multi-mission capability that serves the needs of the Nation. The foundation for the challenges of the new world order has been laid. As always, we will be prepared to do what must be done.



Chapter 2

Concepts and Issues

The U.S. is entering a new era which necessitates a thorough and careful reexamination of its defense needs. Policy, strategy, service roles and functions, force structure, weapons systems and budget levels will all come under serious review. Debates of this sort have occurred with some frequency throughout our history. They have been an integral, necessary part of the decision making process and are one of the means for ensuring an efficient, economical defense posture responsive to the Nation's needs.

Maintaining capable Marine Corps forces in support of our national security requires the informed, cooperative efforts of citizens, civilian leaders, industry, and the entire Marine Corps. The purpose of this section is to assist in these efforts by providing a view of key issues facing the Marine Corps that are important to the public debate. Each entry outlines a Marine Corps position or policy on a subject of continuing importance or whose current relevance merits wide Marine Corps and public awareness.

The focus is on broad concerns and care has been taken to avoid technical and budgetary detail or narrow, highly specialized areas.

New Security Era



Emerging Challenges

Changes in the world order, particularly in Europe and the USSR, have reduced the risk of superpower confrontation. At the same time, political and economic instability in both the Third World and the Soviet Union have created a complex and dangerous international security environment.

Discussion

In this time of shrinking resources, the requirements placed on the U.S. Armed Services have not diminished. 1990 saw numerous instances of American military involvement worldwide, and with the commencement of **Desert Storm**, 1991 will see more of the same. Last year's hopes for a "peace dividend" have all but disappeared as a result of war in the Middle East, discord in countries on several continents, and ethnic violence in the Soviet Union.

Throughout the Third World, new centers of instability continue to emerge and develop. Proliferation of high-tech weaponry advances unchecked. **Operation Desert Storm** demonstrates graphically the lethality wielded by regional powers through weapons such as tactical ballistic missiles, mines, anti-ship cruise missiles, and chemical/biological munitions. In addition to these, several developing nations have armor and naval forces capable of operations beyond their borders. Terrorism is an inexpensive way for these powers to carry out their national policy; likewise, the flow of illicit drugs threatens our values and contributes to insurgency and terrorism.

The Marine Corps continues to provide viable and responsive solutions to these challenges. Demonstrated preparedness through innovative force packages such as Crisis Action and Deterrence Force Modules and the versatility inherent in special operations capable Marine Air-Ground Task Forces enables the Navy-Marine Corps team to respond to the spectrum of worldwide crises. Our MAGTFs are frequently tasked to perform a variety of missions including; presence, Mobile Training Teams, security assistance operations, humanitarian assistance, counternarcotic task forces, and noncombatant evacuations. This capacity to support national policy is evidenced in both crisis response operations (Liberia and Somalia) and joint campaigns like **Desert Storm**.

Marine Corps Position

Existing Marine forces stand ready and able to promote regional stability through capabilities ranging from forward presence to joint and combined operations.

National Military Capabilities

As global instability increases and resources become scarcer, our national military capabilities will be restructured. The Armed Services must strive to complement one another's capabilities and avoid unnecessary duplication. While some redundancy is desirable, duplication is an unaffordable luxury.

Discussion

General purpose forces are a key part of the foundation upon which our national capability is built. They provide the most capability for the smallest investment. They are particularly valuable as a hedge against uncertainty because they can respond to threats at all levels of violence. General purpose forces are complemented by more specialized forces to create a formidable national military capability. This approach will ensure the widest range of response to potential threats in the future.

Over the past four decades, each Service provided special capabilities to our National Military Strategy. While post-Cold War force reductions are inevitable, proven Service-unique capabilities should be preserved. Single-service combat operations are a thing of the past. Joint and combined operations provide the structure for combining the Services' complementary capabilities into a formidable national military capability. While debate among proponents of the maritime, continental, and aerospace strategies is healthy, our primary focus must be on combining the most useful elements of these competing views into an integrated military strategy. This approach should embrace the fact that this is a maritime nation and that the majority of our strategic interests lie across the seas.

Future strategy and force structures must promote stability, foster collective security among our allies, and hedge against the uncertainty of the present transition period for the remainder of this century. The future will place greater emphasis on Joint and combined operations to capitalize on existing complementary capabilities within the Services. Each Service should continue to focus on its respective roles and unique capabilities and institutional ethos.

Marine Corps Position

Future adjustments to national military capabilities should seek to preserve and integrate the most effective elements of Service capabilities. The continental, maritime, and aerospace strategies and forces must be integrated to capitalize on existing combat power and the synergism of Joint and combined operations. We should strive to provide the most cost effective defense for the Nation.

Global Deployability

Operation Desert Shield graphically illustrated the shift in the new world order to regional instability. As the nation's expeditionary force-in-readiness, the Marine Corps' contribution will become increasingly important for its unique and demonstrated global deployability.

Discussion

Desert Shield has once again focused attention on the criticality of rapid deployment for all the Services. The Marine deployment to Southwest Asia was accomplished through combined use of Maritime Prepositioning Shipping, Navy amphibious shipping, and strategic airlift from the U.S. Air Force. The Marines' rapid reaction highlighted our expeditionary capability, the unparalleled effectiveness of MPS, and underscored the importance of our nation's strategic sealift and airlift capacity.

The deployment of expeditionary forces allows the positioning of credible combat power to places of probable employment in times of increased tension **without committing U.S. forces to hostilities**. Maritime Prepositioning Forces combine the best use of our deployment assets to provide credible combat power on station in the least amount of time. MPFs are self-sustaining, carrying 30 days of supplies. For example, elements from I MEF were committed using fewer than 260 strategic airlift sorties. This is a strategic savings when compared to the 3,000 plus sorties that would have been required to deploy a similar force without MPS.

However, MPS assets are not a substitute for forcible entry nor can ships be prepositioned in every possible crisis area. Amphibious forces provide added deployment flexibility plus this Nation's most potent power projection capability. As credible, combined arms forces with combat aircraft, tanks and infantry, amphibious organizations can operate independently of land-based support and overflight requirements.

Marines also deploy by strategic airlift either as part of an MPF operation or independently as an Airlifted Contingency Force (ACF). Our ACFs are light, task organized, expeditionary forces that are rapidly deployable on short notice. They can operate independently or as the lead element of a larger expeditionary force.

Marine Corps Position

The ability to **globally deploy credible power projection forces to distant regions of the world and sustain them will remain fundamental**. Strategic lift, both air and sea assets, have been and will remain, the linchpin in the execution of crisis response and contingency operations.

Counternarcotics Support

Illicit drugs pose a significant threat to U.S. security, values, and institutions. Countering illicit drug production, trafficking, and use are high-priority U.S. military missions.

Discussion

The Marine Corps' support for the President's National Drug Control Strategy includes providing personnel, equipment, training, logistics, transportation, and intelligence support to selected foreign governments, non-DoD agencies, and the civilian community. The Active and Reserve Components participate in every facet of this program. We are conducting a three part effort that deals with the production, transit, and demand of illegal substances.

Countering illicit drug production: The Marine Corps is actively involved in training, equipping, and providing operational support to Latin American countries and drug law enforcement agencies in their efforts to reduce the supply of illicit drugs at the source. The primary focus is control of the river networks to combat the movement of precursor chemicals and coca, as well as the destruction of coca processing labs located along the rivers. All Marine Corps activities are in concert with the Southern Command theater strategy.

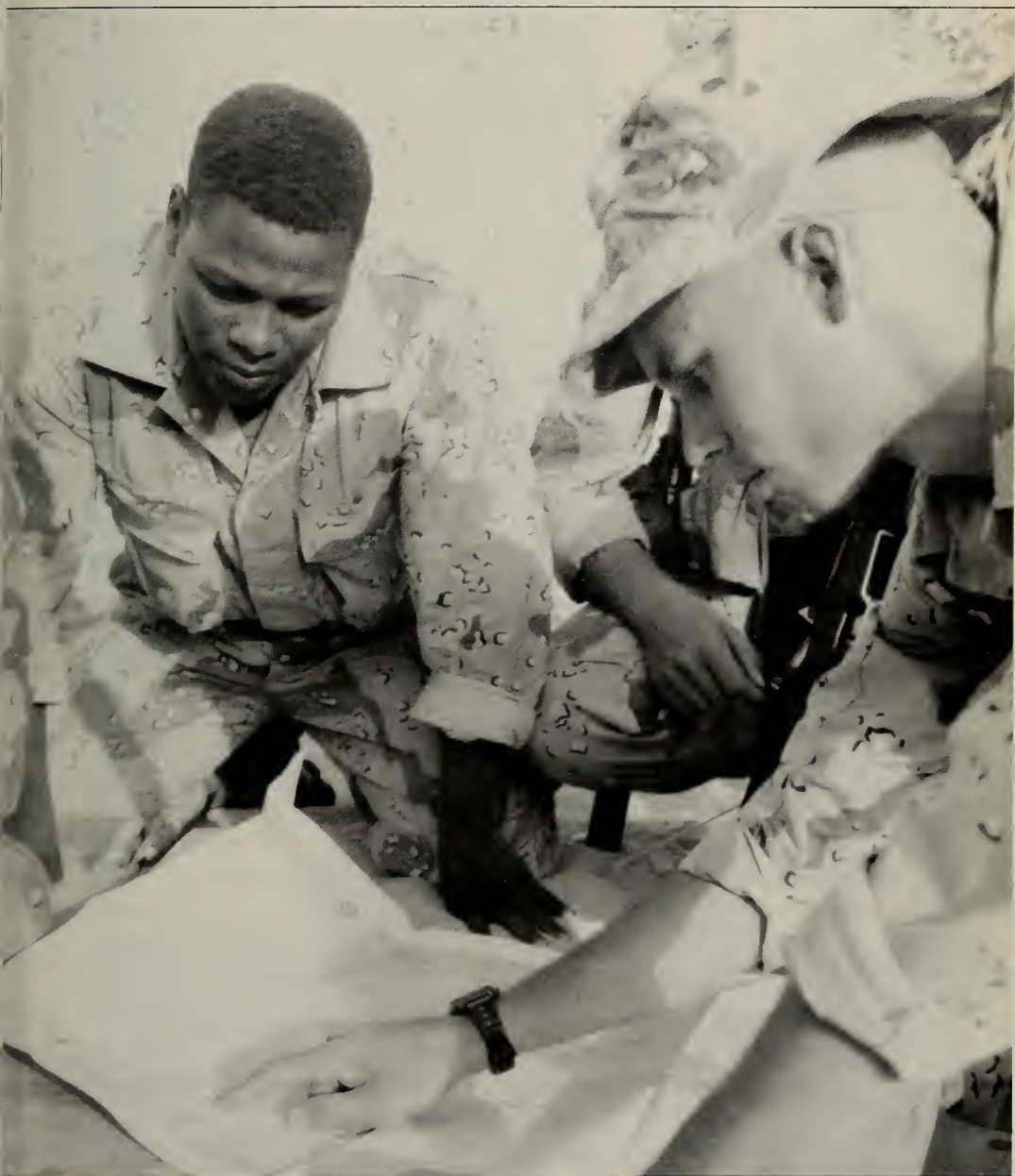
Countering illicit drug trafficking: In supporting the interdiction of drugs in transit, the Marine Corps provides personnel and resources to joint task forces in the Caribbean and Atlantic, the Pacific, and along the Southwest Border. Additionally, the Marine Corps loans equipment to the Drug Enforcement Administration in the Bahamas, the Border Patrol and the Customs Service along the Southwest border and on the West Coast of the United States. Equipment support includes night vision goggles, M16A1 rifles, vehicles, ground sensors, and communications equipment.

Countering illicit drug use: The Marine Corps' internal drug abuse program is highly respected for its success in reducing the abuse of drugs within our ranks. Beyond "taking care of its own," the Marine Corps is involved in numerous community-oriented drug prevention programs that serve the spectrum from Boy/Girl/Cub Scouts, "Adopt a School" programs, Marine Junior ROTC units, urban neighborhood activities, to rehabilitation-oriented training to state and local law enforcement agencies.

Marine Corps Position

The Marine Corps will continue to employ a balanced approach to combat both the demand and supply sides of the drug problem.

Force Structure



Force Size

Fiscal realities dictate force reductions throughout the Department of Defense. Imprudent end strength reductions will have a negative effect on relevant and proven Marine Corps capabilities and stretch our ability to man the 3 Division/3 Wing structure, the reservoir from which we draw our combat forces.

Discussion

While the budgetary trend is clear, the nature of the security threat is uncertain. Therefore, the challenge facing the Nation is to preserve those forces that can deter aggression and are mobile, versatile, and available to respond to a wide range of taskings. These forces must have the following characteristics:

- High levels of readiness
- Balanced and flexible for global taskings
- Combined arms
- Rapid responsiveness
- Credible forcible entry capability.

The ability of the Marine Corps to contribute to the Nation's military objectives and to spearhead operations is directly related to its size. The case for naval expeditionary forces is well documented. Over the past forty years these forces have been and remain a preferred diplomatic and military option. They provide the flexibility required to meet global commitments independent of overseas bases and agreements.

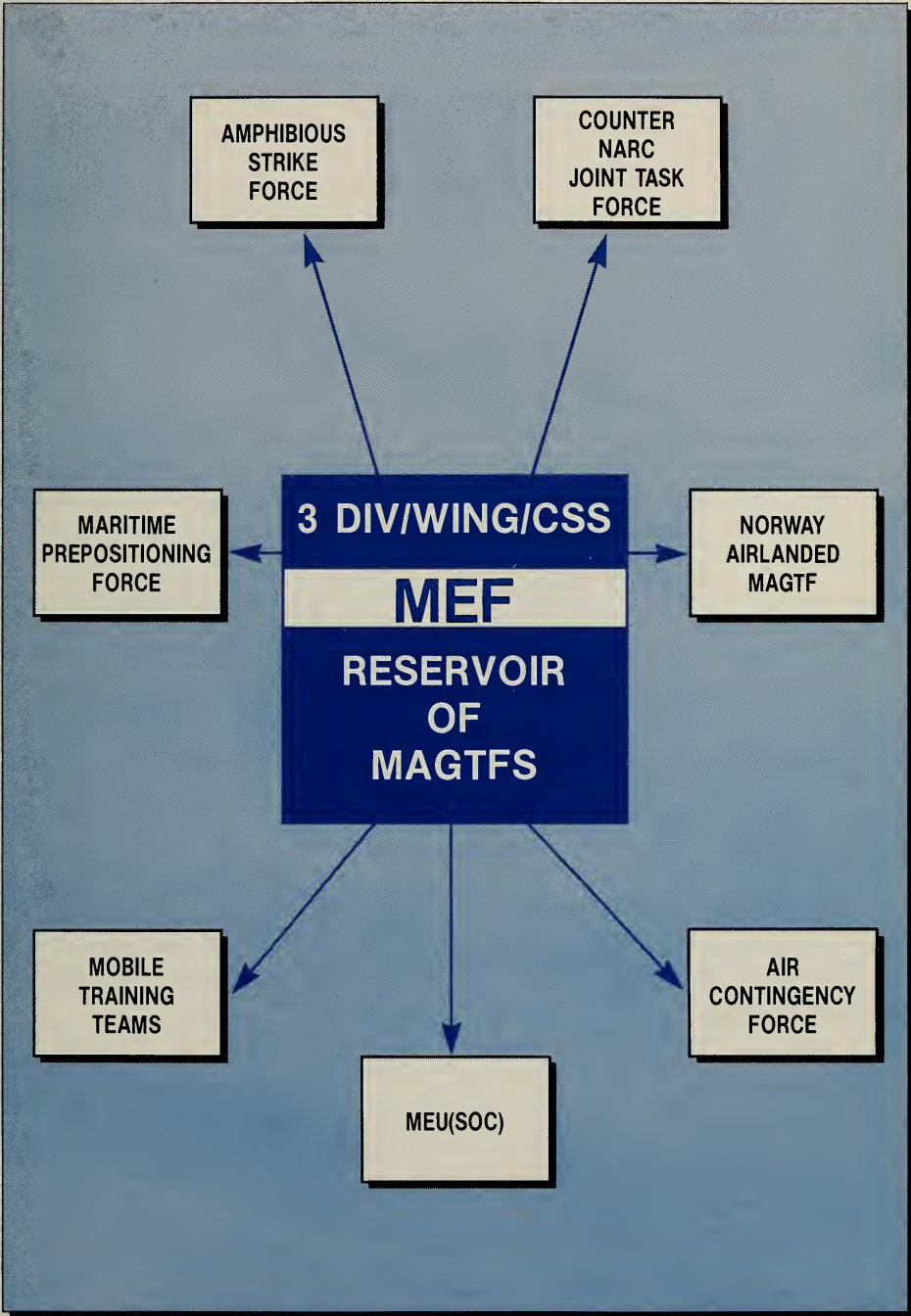
Because the Marine Corps invests so heavily in the quality of its manpower, fiscal reductions which translate into a decrease in the number of U.S. Marines will directly impact combat capability. Our training and supporting establishments are extremely lean and cannot sustain further cuts. Reductions will necessarily come from our operating forces causing a disproportionate loss of combat capability.

A smaller Marine Corps will not provide the expeditionary capabilities required by the Nation in these uncertain times. **Continued reduction over time will fracture our balanced air-ground-logistics team concept and degrade our ability to rapidly respond to a crisis.** Nor will we be able to credibly maintain the structure established in Title 10 by our national leadership. It would be premature to undertake a major restructuring of naval expeditionary capabilities, the core of our contingency response.

During the past year the Marine Corps has responded to a major regional contingency while simultaneously responding to two lesser crises. This response could not have been achieved without our current force levels.

Marine Corps Position

Traditionally, the Marine Corps has focused on regional conflict and crisis response. Our ability to respond to crises and maintain our global presence underscores the need for a two-ocean, three MEF Marine Corps that is credibly manned and prepared for rapid response.



Total Force

The Marine Corps employs the Total Force concept and policy in order to optimize the lethality and flexibility of today's forces.

Discussion

The Marine Corps Reserve is a dynamic organization that complements Fleet Marine Force structure and capabilities. Charged with providing the means for rapid expansion of our Corps during national emergency, the Marine Corps Reserve is the foundation for sustainability upon full or partial mobilization.

Active and reserve force capabilities are by design complementary. Active forces focus on those operations for crisis response while simultaneously maintaining the potential for initial commitment to general war. In most crisis scenarios, the Marine Corps can tailor a MAGTF sufficiently potent to deal with the situation through to its resolution. Reserve forces provide the added capability, flexibility, and depth required for lengthy deployments or protracted conflict.

Desert Shield proved the soundness of this concept. The Marine Corps was able to deploy an effective, credible warfighting unit without calling up the reserves. Our ability to react with this sustainable force lends credence to previous decisions maintaining balanced Combat Service Support capabilities within the total force structure. Those reserve combat units that were later activated came on board intact. This emphasis on reserve unit integrity enhanced readiness, effectiveness, and cohesiveness upon their deployment.

Desert Shield/Desert Storm clearly highlight the requirement for a highly ready Reserve force. Our modernization efforts, meaningful training programs and tested mobilization procedures have combined to create a Reserve force capable of meeting all requirements.

If active force structure decreases are required, the maintenance of appropriate capabilities for sustained conventional combat will require increased reliance on the Marine Corps Reserve.

Marine Corps Position

The Marine Corps remains committed to structuring a cost-effective force capitalizing on inherent active and reserve strengths, and a force that remains responsive across the spectrum of conflict.

Modernization



Amphibious Lift

Amphibious lift is the key component of the Nation's forcible entry capability.

Discussion

The needs of the Nation dictate full preservation of our amphibious capabilities. Amphibious forces are one of only two forcible entry capabilities possessed by the U.S., and the only one incorporating significant organic firepower and sustainability. Accordingly, amphibious forces, in combination with other maritime assets, are fundamental for sea-based presence and forcible entry. This capability enhances the ability of the U.S. to influence events around the world.

The mobility and sustainability of amphibious forces provide the capability to move to a crisis and to support a full range of national objectives. Whether supporting diplomatic efforts to compel quarrelsome nations to behave, or threatening amphibious assault to deter potential adversaries, amphibious forces, poised just over the horizon, available at the critical place and time, hold more utility and responsiveness than U.S.-based forces.

The operational requirement for amphibious lift is the assault echelons of two Marine Expeditionary Forces (MEF(AE)). Realizing attainment of this goal may be fiscally unaffordable, the Marine Corps accepts greater operational risk in a programming goal set at the assault echelons of three Marine Expeditionary Brigades (i.e., 3 MEB(AE)). This level only provides a contingency level to support two-ocean crisis response. It does not adequately support a two-ocean major regional conflict capability or the ability to respond simultaneously to multiple flashpoints.

The Marine Corps views with concern reductions to amphibious shipping that is so vital to our global commitments. Compounding this concern is the impending block obsolescence of 80 percent of present amphibious ships, which occurs primarily between Fiscal Years 1996 and 2008, and the reduction in future shipbuilding plans. Replacing these valuable assets will require a realistic, long-range investment plan. Fortunately, the newer classes of amphibious ships under construction and in concept design will be both more versatile and capable than today's fleet. Therefore, fewer ships will be required to maintain an equivalent capability.

Marine Corps Position

The Marine Corps provides the Nation with the most formidable forcible entry capability in the world. This capability is based on the availability of amphibious ships. To preserve this valuable capability, reductions to the current amphibious force should be carefully considered.

Amphibious Assault

In addition to adequate amphibious lift, modernization of current amphibious assault capabilities is critical to successful power projection operations in the 21st century.

Discussion

The proliferation of sophisticated weapons that threaten the sea and land forces of an amphibious operations have led the Navy/Marine Corps team to develop Over-The-Horizon (OTH) tactics and doctrine. This development will preserve and enhance the Nation's force projection ability. OTH operations provide for amphibious assaults to be launched further offshore than currently attempted, providing greater security, flexibility, and speed in conducting these operations while reducing the risk to our forces. Currently, technological initiatives to support the concept are under development.

The current assault amphibious vehicle, the AAV-7A1, was introduced in 1972 and, beyond simply being aged, it requires replacement to support OTH. A major service-life extension program initiated in 1983, coupled with depot level maintenance programs, extended the vehicle service life until 2004. The Advanced Amphibious Assault (AAA) Program is intended to provide the Marine Corps with a credible and advanced system that will fulfill the mission needs of the Marine Corps during the FY-2000 to FY-2020 time frame.

Our number one aviation priority remains the replacement of our aging CH-46 and CH-53A/D helicopter fleets. The Medium Lift Replacement program fills the critical gap created by the retirements of these airframes and maintains the ability to project power ashore using the OTH concept. They will also enhance our intra- and inter-theater deployability.

The retirement of the last of the Iowa Class Battleships at the end of **Desert Storm** will mark a significant reduction in long-range Naval Surface Fire Support (NSFS). Further development of long-range NSFS is required to support both amphibious operations and subsequent operations ashore.

Shallow water mines are readily available, low cost, simple, and easily employed by potential adversaries in an attempt to thwart our power projection efforts. We will continue to explore and develop new techniques for locating and neutralizing these mines.

Marine Corps Position

To counter future threats and provide credible forcible entry into the 21st century, investments must be made in those programs essential to modernize the Nation's amphibious assault capability.

Marine Aviation Modernization

Marine aviation must remain effective and responsive to MAGTF requirements across the wide spectrum of potential conflicts.

Discussion

Marine Aviation objectives include enhancing combat effectiveness; further developing night, over-the-horizon and adverse weather capabilities; reducing the number of different aircraft in the inventory, achieving an all vertical/short-takeoff and landing (V/STOL) force; increasing supportability, reliability, and maintainability of all aircraft and reducing dependency on strategic lift. The most important key to this plan is fielding a replacement for our aging CH-46E and CH-53A/D force.

The foremost objective of all aviation modernization programs is to enhance mission effectiveness. We are procuring multi-mission aircraft that contribute more toward the overall MAGTF warfighting effort. Programs supporting this effort include replacing the A-6E with the F/A-18D, integrating the F/A-18 radar into the AV-8B, upgrading anti-armor missiles, and developing an Airborne Early Warning capability in the KC-130.

The Marine Corps' commitment to night and adverse weather enhancements is evident in programs such as the AV-8B Night Attack, the F/A-18C/D Night Attack, the AH-1W Night Targeting System, the CH-53E Night Vision System, the OV-10D+ Night Observation System, and night sights for the Stinger missile.

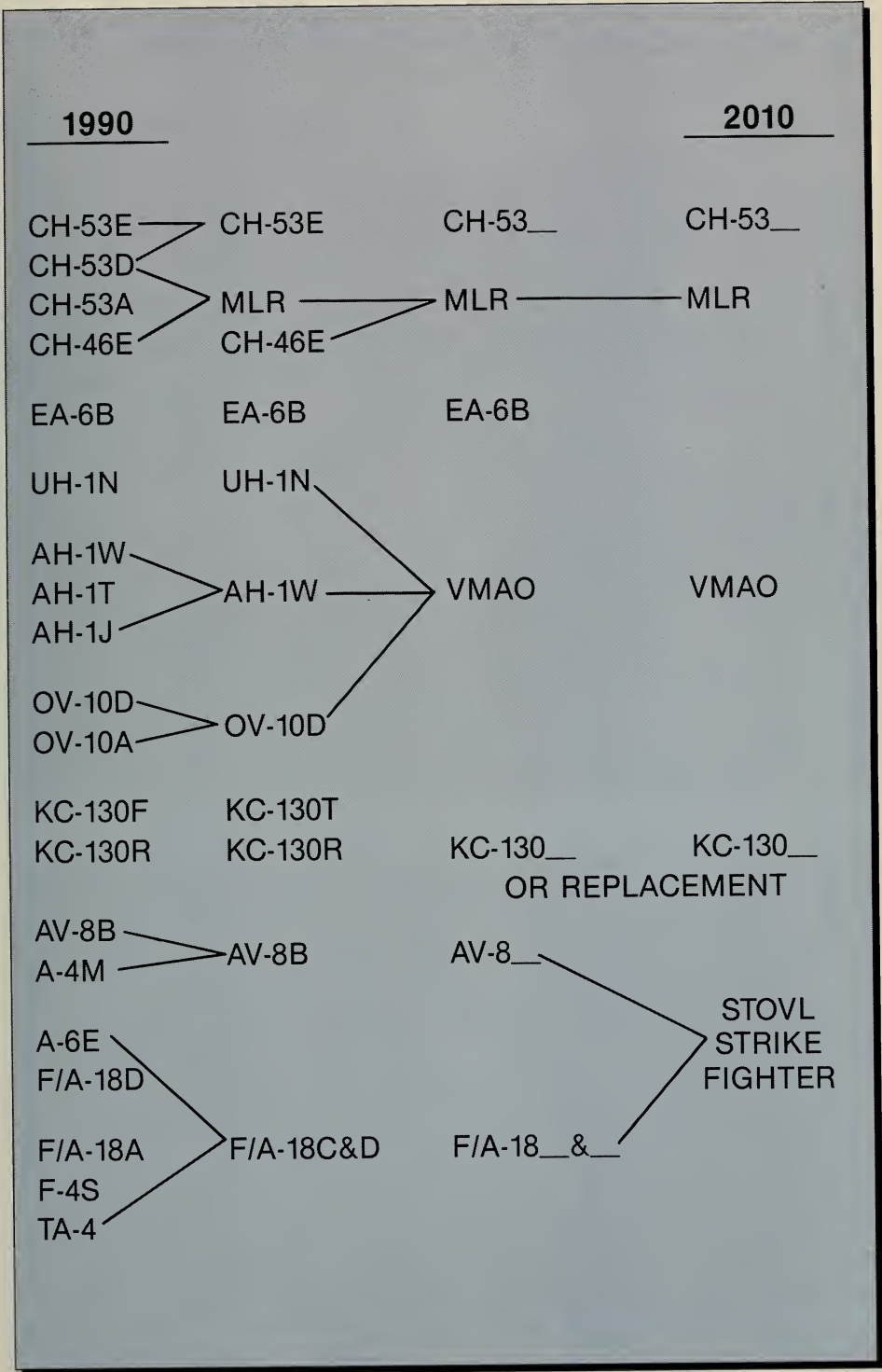
Advanced technology is being introduced only when there is an absolute assurance of increased reliability, supportability, and maintainability in austere expeditionary combat environments. Support equipment and facilities are being developed and procured in concert with their primary weapons systems.

The number of different aircraft in the Marine Corps inventory will be reduced by approximately 50 percent (from 15 to 9) with potential for further reductions as we approach the year 2000. This "neckdown," together with the attainment of an all V/STOL fixed-wing force, will enhance the expeditionary nature of the Aviation Combat Element.

Marine Corps Position

Marine aviation is a vital component of our combined arms approach to warfighting. Our aviation modernization investments will emphasize increased survivability, high reliability and maintainability for austere environments, and greater flexibility in deployment and employment. **Our number one priority remains the need to replace our medium-lift assault helicopter fleet.**

USMC Aviation Neckdown Plan



Sealift

Sealift is essential to U.S. strategic mobility. Events of the past year highlight our continued dependence on a robust capability of projecting and sustaining military forces by sealift.

Discussion

Strategic sealift is the dominant component of the strategic mobility triad of sealift, airlift, and prepositioning. Early movement of light forces may be done by airlift, but heavy forces and significant sustainment necessary for any force are more efficiently and economically transported by sea. Historically, ninety-five percent of war materiel is transported by sea.

The Mobility Requirements Study is an ongoing effort within DoD to determine mobility requirements necessary to move U.S. forces and develop an integrated plan to meet those requirements in response to future threats. The goal of this study is to determine the appropriate mix of airlift, sealift, amphibious lift, surface transportation, prepositioned materials and support equipment, and facilities necessary for use in CONUS and overseas, and theater air and sea ports. Current sealift resources include:

- Existing U.S.-flag cargo ships under charter to the U.S. Navy.
- Prepositioning ships.
- Fast Sealift ships.
- Requisitioning of ships.
- Charters of additional U.S.-flag cargo ships.
- Charters of foreign-flag cargo ships.
- Activation of the Ready Reserve Force.
- Execution of the Sealift Readiness Program.

Solutions that may be considered to improve lift capacity include the purchase/lease of additional ships, adding more afloat prepositioning ships, adding lift that is maintained in CONUS in a reduced operating status (either fast or slow speed), or developing a commercial sealift program similar to the Civil Reserve Air Fleet (CRAF).

Marine Corps Position

The Marine Corps supports the effort to produce an integrated strategic lift goal and the development of a balanced and cost effective mobility force. The Marine Corps supports increased funding to augment the Ready Reserve Fleet with Roll-on/Roll-off (RO/RO) ships in a five-day readiness status. Additionally, militarily useful U.S.-flagged commercial ships that would respond to defense needs in a manner similar to the CRAF, must be built.

Quality Force



Training and Education

Tough, realistic, combat-oriented training to high standards is vital for readiness and leader development.

Discussion

The purpose of all training and education in the Marine Corps is to prepare Marines to fight and to win in combat. Our focus is global, we train to fight in any clime and place from Central America to the Persian Gulf, from Northern Europe to the South Pacific. We train across the spectrum of conflict from low-intensity to high-intensity conflict. In all cases we must have well-trained, imaginative Marine leaders, and Marines who will be bold in the face of the fog and friction of war.

Marine Corps doctrine, tactics, techniques, and procedures have kept pace with the changing world environment. The deployment to and employment in Southwest Asia of two Marine Expeditionary Forces, and smaller Marine Air-Ground Task Forces in lesser contingencies, have tested and validated our doctrine, tactics, techniques, and procedures. The lessons learned from world-wide MAGTF operations are quickly absorbed, and existing doctrine is adjusted.

The training programs and initiatives we utilize to achieve these goals include the following:

Marine Battle Skills Training (MBST) is a comprehensive training process, designed to develop and sustain basic combat skills throughout a Marine's career; focused on extensive firing of individual and crew-served weapons, basic knowledge of field skills, rugged battle drills, and combat-oriented physical conditioning.

Professional Military Education (PME) is designed to develop innovative, forward-thinking leaders. The program encompasses formal schools, structured self-study, selected professional reading, symposia, and lessons learned in duty assignments.

The Marine Corps University (MCU), located at MCB Quantico, Virginia has cognizance over all Marine schools to include the Command and Staff College, Amphibious Warfare School, Communications Officers' School, The Basic School, SNCO Academies, and 17 NCO schools. The MCU has recently expanded by offering two new programs, the **School of Advanced Warfighting** and the **Art of War Studies Program**. We are also making progress on the University's planned research facility.

Marine Corps Position

The Marine Corps will continue to invest in the training and education of all Marines. Marine Corps training and education initiatives will remain combat-oriented and will ensure that all Marines have the basic warfighting skills needed to survive and win on the modern battlefield.

Recruiting and Retaining a Quality Force

Recruiting and retaining the best quality force is essential for a lean, expeditionary, more capable Marine Corps.

Discussion

Recruiting: The Marine Corps' most potent answer to an unpredictable and potentially turbulent future is the individual Marine. Our top most priority has therefore been to recruit and retain the very best active and reserve force that American society has to offer.

Our "Quality First" Total Force Policy has been strengthened by the recruiting successes of the past three years. More than 95 percent of our accessions were Tier I (High school graduates), with over 67 percent scoring in the upper three AFQT categories. For two successive fiscal years we have started the year with more than 63 percent of our planned yearly accessions contracted and pooled in our Delayed Entry Program. These achievements provide the Marine Corps with responsive, highly motivated, and intelligent Marines. As has been amply demonstrated by **Desert Shield/Storm**, these young Americans give us the kind of quality we need.

Retention: The success of our recruiting program is mirrored by impressive successes in our retention programs. Both the officer and enlisted corps are measured by their unselfish devotion to duty and their performance under demanding physical and psychological conditions. To meet these standards, our retention programs are designed to ensure a proper balance of skills and not simply to achieve end strength.

We are especially proud that the Marine Corps surpassed its overall reenlistment goals for Fiscal Year 1990. In achieving its retention goals, the Marine Corps has improved unit cohesion, increased stability, and lowered training costs. In this way retention programs provide a very high return on recruiting and training investments. The Selective Reenlistment Bonus Program is one of the most important factors contributing to this success.

Marine Corps Position

Maintain the current standards of recruiting and retention in order to provide the highest quality force possible.

Maintaining Quality of Life

Maintaining a quality Corps is greatly dependent on our ability to maintain a high quality of life for Marines and their families.

Discussion

The Marine Corps continues to find a direct relationship between quality of life programs that affect the lives of our Marines and their families, and combat readiness and retention.

Important parts of these programs are new and rehabilitated Bachelor Officer and Enlisted Quarters (BOQ/BEQ) and our 18 Family Service Centers in the United States and overseas. The demands on these centers have steadily increased over the past three years, a fact that underscores their value to our Marines and their families. During FY 1990 these centers handled approximately 350,000 contacts. The effectiveness and value of these Centers have been tested and validated by **Operation Desert Storm**.

Other Marine Corps programs that help alleviate the difficulties and stress associated with military service include: (1) Financial planning programs that emphasize allotments, split-pay, and direct deposit; (2) Support groups such as Key Wives; (3) Educating Marine families on the services available at the Family Services Centers, Navy-Marine Corps Relief Society, American Red Cross, and the Chaplain; (4) Improving pre-deployment checklists to ensure that such documents as wills and powers of attorney are properly completed; (5) Establishment of Spouse Employment Resource Centers; (6) Enhancement of Child Development Centers/Family Home Day Care Programs; (7) Implementation of the Exceptional Family Member Program; (8) Expanded off-duty educational opportunities for Marines; (9) Expanding the scholarships available to Marine dependents in cooperation with private business; (10) Improved housing and recreational facilities; and (11) Transition Assistance Management Program to ease the transition to civilian life.

Marine Corps Position

Continue to ensure that our Marines and their families enjoy the quality of life they so richly deserve.

Environmental Stewardship

The Marine Corps takes its responsibilities with respect to the environment seriously. This imposes an additional set of priorities on our traditional defense mission.

Discussion

We are committed to compliance with Federal, State, and local requirements for preventing pollution of our air, land, and water resources. Our approach is to first identify and correct current environmental deficiencies at our installations, and then promote a proactive approach to effective environmental stewardship. This includes concerted efforts to: reduce hazardous waste generation, upgrade or replace underground storage tanks, eliminate PCB transformers from use, modernize aging sewage treatment plants, and reduce toxic air emissions. We continue to pursue early remedial action at all of our National Priority List Hazardous Waste sites. Providing civilian personnel resources to correctly staff environmental compliance and protection programs is a key element of success in this endeavor.

An integral part of our environmental compliance and protection program is the enhancement of our natural and cultural resources. We are striving to optimize our returns from forestry and agricultural outlease programs and to meet endangered species and historic preservation requirements. This provides our best opportunity to maximize training through real-time management of multiple use areas. Commanders at all levels know they are accountable for ensuring that the environment is given full weight in all appraisals.

Marine Corps Position

Resource stewardship and its accompanying ethic are tantamount to the preservation of essential military capability. To this end, we are proud of our efforts and accomplishments and acknowledge that much more must be accomplished in terms of awareness, training, and education. The Marine Corps is committed to providing the resources and leadership necessary to maintain a quality environmental program.

Total Quality Leadership

To execute the Marine Corps' expanding responsibilities in a period of increasingly austere resources requires adoption of a quality-focused strategy of continually improving performance at every level and in all areas. That strategy is embodied in the concepts of Total Quality Leadership.

Discussion

Total Quality Leadership (TQL) is a systems approach to managing work and leading people, guided by a total view of how systems and people blend together to meet mission requirements. It is the application of quantitative methods and people to assess and improve: materials and services supplied; all significant processes within an organization; and meeting the needs of users, now and in the future. TQL acknowledges the unique role of leadership and does not alter the traditional responsibilities of the Corps' leaders. It requires top-down leadership with a focus on quality. Through the commitment to quality improvement, the essence of TQL, the Marine Corps will continually improve its effectiveness and its support to its operational forces.

The Marine Corps' senior leaders are committed to improving quality through the implementation of TQL. To date, initial efforts are being directed at defining and infusing increased quality in the activities of its supporting establishment, and focusing on education and training to develop informed leaders and followers able to take on their enhanced role. To that end, several commands have begun implementing the concepts of TQL and have initiated education efforts. The Corps' senior leaders are being introduced to the concepts of TQL through attendance at a one-week Senior Leaders Seminar being conducted at the Naval Postgraduate School at Monterey, California. These efforts will continue; much more will be initiated in the near future.

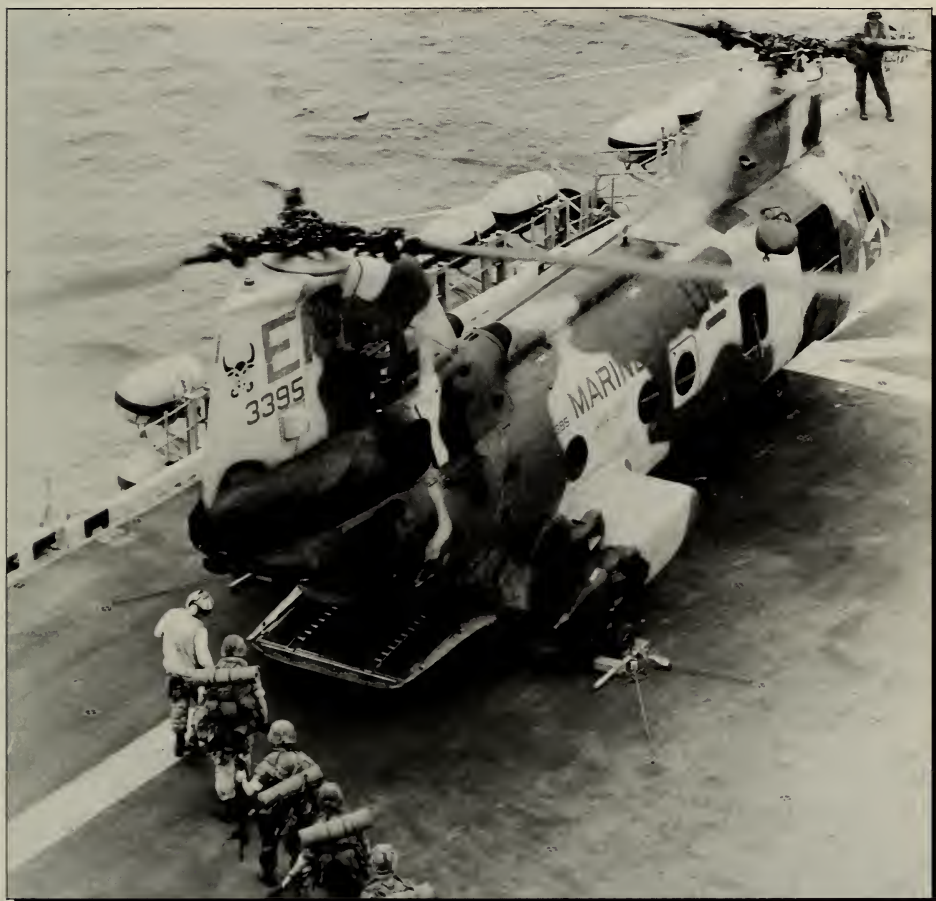
Marine Corps Position

To continually improve the high quality support, products and services to the operating Marine Air Ground Task Forces through the implementation of the concepts of Total Quality Leadership.

Chapter 3

Major Programs for Improved MAGTF Capabilities

This chapter provides background information regarding specific key programs being pursued by the Marine Corps, or acquired by the Navy to enhance the overall capabilities of the MAGTF. These programs represent a very modest cost to retain and enhance the existing flexibility and capabilities of our expeditionary forces for the projected security environment.



Marines from the 22nd MEU embark on a CH-46E Sea Knight aboard the amphibious assault ship USS Saipan during Operation Sharp Edge. This operation was conducted in Liberia and resulted in the evacuation of 2,600 noncombatants and 330 U.S. citizens.

Light Armored Vehicle-Air Defense (LAV-AD) Program

DESCRIPTION: The LAV-AD is being developed as a member of the LAV family of vehicles. The LAV family is a series of 8 x 8 wheeled, light armored vehicles that provide significant improvements in firepower and tactical mobility for combat units. All vehicle configurations have the same power plant, drive train, steering assemblies and similar ballistic hulls.

The LAV-AD is a ground-based, low altitude anti-aircraft weapon platform featuring a stabilized turret with a shoot-on-the-move capability mounted in an LAV chassis. The system will integrate a rapid fire 25mm automatic gun and four Stinger surface-to-air missiles. The turret will also mount the 2.75 inch Hydra 70 rocket system. The LAV-AD fire control system will consist of a forward looking infrared (FLIR) sight, a laser rangefinder, a contrast autotracker, and a fire control computer.

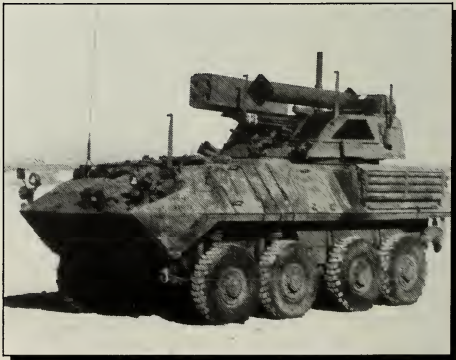
PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	0	0

OPERATIONAL IMPACT: The mission of the LAV-AD is to defend maneuvering Marine Corps combat forces from air attack and provide ground defenses against light armored mechanized forces. The proliferation of sophisticated air assets throughout the world requires that rapidly moving light armored elements of the MAGTF be able to defend themselves against air attack.

PROGRAM STATUS: The LAV-AD program is in Full Scale Development (FSD) with two contractors developing and integrating two prototype turrets into an LAV chassis. Developmental and operational testing is underway and a production decision is planned for FY-93.

DEVELOPER/MANUFACTURER: General Electric and FMC in FSD.



Light Armored Vehicle-105mm Gun (LAV-105) Program

DESCRIPTION: The LAV-105 is being developed as a member of the LAV family of vehicles. The Marine Corps warfighting strategy requires other LAV configurations, such as the LAV-105, to perform mission roles in an integrated combined arms team. All configurations have the same power plant, drive train, steering assemblies and similar ballistic hulls. The LAV-105 has a 105mm stabilized, auto-loading gun with a thermal sight, laser range finder and a fire control computer into a state-of-the-art fire control system.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	0	0

OPERATIONAL IMPACT: The LAV-105 will provide a highly mobile direct fire capability for the Light Armored Infantry (LAI) Battalion and other units of the MAGTF. The Marine Corps requirement is for a quick fire/direct fire capability to destroy enemy command vans, bunkers, installations, and light armored vehicles consistent with the level of mobility/transportability designed into the LAV family of vehicles.

PROGRAM STATUS: The LAV-105 program is in FSD. A contract was awarded in June 1990 to provide for the design, development, and fabrication of three prototype systems for Marine Corps testing. These systems will undergo development and operational testing during FY-92/3.

DEVELOPER/MANUFACTURER: TBD



The LAV program was operationally validated with high marks during Operation Just Cause in Panama. The LAV assault vehicle with its 25mm gun, displayed above, continues to perform credibly in Operation Desert Storm.

Advanced Anti-tank Weapons System — Medium (AAWS-M)

DESCRIPTION: The AAWS-M is a medium range, manportable, “fire and forget” weapon system which will replace the Dragon anti-armor missile system. AAWS-M will satisfy an operational requirement to provide increased reliability, higher hit/kill probability, and greater effective range (2000m) against current and future armored threats. AAWS-M uses an infra-red seeker coupled with an advanced warhead and top attack missile trajectory to provide higher hit/kill probability. It will allow an infantryman to successfully engage and kill modern armor systems and other vehicles at twice the range of current manportable weapons.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	0	434

OPERATIONAL IMPACT: The current manportable medium anti-tank weapon system, Dragon, is not effective against the improved conventional and reactive armor on existing threat vehicles in the field. The TOW, our current anti-armor weapon, is capable but is not manportable.

PROGRAM STATUS: The Army and the Marine Corps are jointly participating in the development of the AAWS-M, with the Army as the lead Service. The program is currently in FSD with an expected Operational Test Evaluation in FY-92.

DEVELOPER/MANUFACTURER: Texas Instruments and Martin Marietta.



Advanced Amphibious Assault Program

DESCRIPTION: The goal of the Advanced Amphibious Assault (AAA) Program is to provide the Marine Corps with an Over-the-Horizon (OTH), forcible entry, amphibious assault capability that replaces the AAV7A1. The product of the AAA Program will complement the Landing Craft Air Cushion (LCAC) and medium lift assault aircraft in improving amphibious lift and tactical mobility to the MAGTF.

PROCUREMENT PROFILE: TBD

OPERATIONAL IMPACT: The AAA will satisfy multiple mission area needs by providing the mobility, firepower, and armor protection to embarked personnel during the ship-to-shore portion of the amphibious assault as well as subsequent operations ashore. The Marine Corps' mission requires the continuous application of technology to improve the tactical mobility of Marine expeditionary forces. The AAA's inherent characteristics allow the uninterrupted movement of the surface assault forces from ships over the horizon to inland objectives. Its speed on land and in the water, firepower, and armor protection will permit forcible entry of Marine expeditionary forces against opposed landing zones.

PROGRAM STATUS: The AAA Program was approved by the Defense Acquisition Board as a major new start and entered Concept Exploration during October 1989. The AAA Program is currently exploring the various system, concept and doctrine alternatives that may fulfill the Marine Corps' future amphibious assault requirements. A Milestone I review of the program is scheduled for April 1991.

DEVELOPER/MANUFACTURER: TBD.



The AAVP-7A1, shown above is reaching the end of its service life. A replacement for this system is key to retaining our forcible entry capabilities.

NBC Defense Program Highlights

DESCRIPTION: The Marine Corps is pursuing a number of enhancements that will increase the effectiveness of MAGTFs within an NBC environment. As seen by developments in the Third World over the past decade, there is a proliferation of chemical and biological agents in use. Our forces must be able to defend themselves and continue to operate within this environment. In the table below, several ongoing efforts are listed.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
M42 Field Protective Mask	121,265	34,246	34,246
Chemical Agent Monitor (CAM)	1,954	1,207	0
Individual Chemical Agent Detector (ICAM)	10,000	5,000	5,000
Portable Collective Protection System (PCPS)	361	313	338
M21 remote sensor chemical agent alarm	105	97	0
Chemical/Biological Protective Suit, SARATOGA	255,923	50,000	50,000
Skin Decon Kit, M291	251,000	100,000	100,000
Mask Communication Adapter	13,923	10,000	10,000
Green Vinyl Overshoe	248,352	66,050	6,050
Lightweight Decon System	548	142	138

OPERATIONAL IMPACT: The equipment being fielded will support rapid decontamination either at or near the point of contamination, allowing the unit to continue to fight. New NBC protective overgarment suits will provide less heat stress in hot climates. This is particularly desirable given our experience in Operation Desert Shield. All equipment is more easily maintained and more reliable than the equipment replaced. Marines must have the capability to conduct extended operations in an NBC environment.

DEVELOPER/MANUFACTURER: PDA Chemical Research, Development and Engineering Center (CRDEC), USA Natick RD&E Center.

Ground Ammunition Program

The Marine Corps' FY-92 ground ammunition budget request totals \$526.2 million. The significant funding request for ammunition for FY-92 is predicated upon training and operational requirements in Southwest Asia. The FY-92 and FY-93 program is broken down by ammunition category as follows:

ITEM	FUNDING REQUEST (\$ MILLIONS)	
	FY-92	FY-93
Artillery	104.3	0.0
Tank (MIA1)	67.7	1.0
Mortar	71.3	29.5
Small Arms	65.5	32.9
Heavy MG (.50cal/25mm/40mm)	164.1	54.4
Other *	<u>38.6</u>	<u>24.6</u>
Total	\$526.2	\$150.0

* Includes pyrotechnics, grenades, rockets, etc.

In keeping with DoD guidance, the Marine Corps program ensures readiness and sustainability. The current program provides for a balanced procurement of both war reserve and training ammunition to meet the needs of the Marine Corps within approved funding levels.



Stinger Night Sight

DESCRIPTION: The Stinger Night Sight is a lightweight, battery-powered device that is easily attachable and detachable to the Stinger weapon round. The sight contains a wide field of view with the Stinger missile sight reticle inserted in order for the gunner to perform the necessary lead angle and super-elevation to engage hostile targets. There are currently two on-going Stinger Night Sight programs. The first is an interim solution sight utilizing Generation III image intensification, currently being produced and fielded to support Operation Desert Shield. The formal Stinger Night Sight program utilizes thermal imagery to acquire and track hostile aircraft.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93	TOTAL
Interim Solution	150	0	0	150
Formal Program	0	50	225	500

OPERATIONAL IMPACT: The Stinger Night Sight will fill a void that has existed for years within Low Altitude Air Defense, the capability to detect, acquire, and engage unlighted aircraft at night. The formal night sight program will also provide the Stinger gunner the capability to engage during daytime periods of reduced visibility.

PROGRAM STATUS: The interim solution Stinger Night Sight is currently being fielded to Low Altitude Air Defense units in Southwest Asia. A total of 150 sights will be fielded by April 1991. MCRDAC is currently pursuing a modification to the sight to insert a lightweight, low-cost, digital compass. For the formal Stinger Night Sight program, awarding of contracts to build production representatives is scheduled for early 1991. Operational testing is slated for the spring of 1991. An IOC of 4th Quarter FY-92 is scheduled.

DEVELOPER/MANUFACTURER: Interim Solution Developer—MCRDAC / Manufacturer—ITT Electro Optics
Formal Sight Developer—MCRDAC / Manufacturer—Currently under competition

Pedestal Mounted Stinger (PMS)

DESCRIPTION: Pedestal Mounted Stinger (PMS) consists of a fire control unit module which includes a rotatable turret with two missile launching platforms, each containing four ready-to-fire Stinger missiles, a .50 cal machine gun, and a gunners station mounted on a HMMWV. The system incorporates a FLIR sensor to provide for day/night and adverse weather target tracking. The laser range finder provides target range for the gun solution, and ensures missile engagements are conducted within the missile envelope. An operator's display and controls provide the man-machine interface to control engagements, monitor system status, and receive, display and transmit C2I data and information. A remote control unit allows operation of the system up to 50 meters from the system, enhancing crew survivability in a static employment.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	0	10

OPERATIONAL IMPACT: PMS will fulfill the requirement for a mobile, low altitude, air defense system capable of rapid deployment and 24-hr operations. It will improve engagement time, increase firepower, reduce displacement time, and provide a night engagement capability. Its shoot-on-the-move capability will add a new dimension to short-range air defense.

PROGRAM STATUS: PMS is currently in production for the U.S. Army as an NDI system. The Marine Corps participated in R&D with the Army and testing was completed with successful results. An IOC of FY-93 is being planned.

DEVELOPER/MANUFACTURER: Boeing Aerospace Corporation



Medium Lift Replacement (MLR) Aircraft

DESCRIPTION: The MLR is the notional name which has been given to the aircraft which will replace the Corps' aging CH-46E and CH-53D force. The exact type aircraft is undetermined. During the April 1989 Defense Planning and Resources Board (DPRB), the Secretary of Defense directed the development of the necessary replacement aircraft. Subsequently, Congress directed a formal Cost and Operational Effectiveness Analysis to evaluate all reasonable alternatives including, but not limited to, the CH-53E, BV-360, EH-101, CH-46E, and CH-60 aircraft, or any combination thereof. The Institute for Defense Analysis (IDA) completed and forwarded the analysis to the Assistant Secretary of Defense (Program Analysis and Evaluation) on 22 June 90.

PROCUREMENT PROFILE: TBD

OPERATIONAL IMPACT: The MLR will be the backbone of the Corps' assault support force as it enters the 21st century. It will provide the MAGTF with an assault support aircraft with the speed, endurance, and battlefield survivability needed to fight and win on tomorrow's battlefield. It will represent a significant improvement in tactical capability and will replace our current force of CH-46E's and CH-53D's. A replacement for this critical component of our air-ground fighting force is our highest priority.

PROGRAM STATUS: Efforts are underway to satisfy the requirements of this vital mission need.



If the CH-46 replacement aircraft entered production in FY-92, the current medium lift fleet would be 40 years old when retired.

AV-8B Harrier

DESCRIPTION: The AV-8B is a single seat, transonic, vectored thrust, light attack aircraft, capable of increased payloads, range, endurance, and improved reliability and maintainability over the AV-8A. The V/STOL design gives it the capability to operate from a variety of land and sea based air facilities. It is configured with the Angle Rate Bombing System (ARBS) which provides an extremely accurate first pass attack capability and high kill probability through the use of passive laser spot or TV tracking. The last 24 aircraft to be delivered under the current contract will be fitted with the APC-65 radar in addition to the night attack capability now being installed.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	252	24	0

OPERATIONAL IMPACT: An expeditionary force like a MAGTF has limited assets of organic heavy artillery and tanks, relying instead on its ACE to provide the required fire support. The V/STOL capability of the AV-8B is well suited for providing dedicated close air support to Marine ground forces. The AV-8B offers a quantum leap forward in basing options. It can operate from ships as small as a LPH, from rapidly built expeditionary airfields, from forward sites like roads and even from damaged conventional airfields. The addition of night attack and radar systems allows the AV-8B to be even more responsive to the ground commander's needs.

PROGRAM STATUS: The AV-8B is intended to remain in service until the introduction of the replacement ASTOVL aircraft in approximately 2010. The DON is looking at several options to sustain the AV-8B inventory including additional procurement or remanufacture. This would involve incorporation of various safety improvements, service life renewal and incorporation of radar and night attack capability into all of our existing inventory.

DEVELOPER/MANUFACTURER: McDonnell Douglas



F/A-18 “Hornet”

DESCRIPTION: The F/A-18 is a twin-engine, supersonic strike fighter aircraft. The Hornet fulfills both air-to-air and air-to-ground mission requirements and can be operated from conventional and expeditionary airfields or from aircraft carriers. The F/A-18 incorporates state-of-the-art technology such as digital fly-by-wire flight controls, multi-mode radar and lightweight composites. F/A-18C's delivered in FY-90 and future years will incorporate an increased night and marginal-weather capability, which includes a color digital moving map display, Night Vision Goggle-compatible lighting, and Forward-Looking Infrared (FLIR) sensors. A two-seat version, the F/A-18D, incorporates all the warfighting capabilities of the F/A-18C and will include a tactical reconnaissance capability.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity			
DON	746	36	20
USMC	189	12	8 *
(*USMC share of new aircraft varies based on transition schedules)			

OPERATIONAL IMPACT: The F/A-18 provides a modern multi-mission offensive and anti-air capability to the MAGTF. The F/A-18D will replace the RF-4B, OA-4/TA-4, and A-6E. The F/A-18D provides the MAGTF with a platform capable of tactical reconnaissance and tactical air control while retaining the offensive and defensive anti-air capabilities of the F/A-18A/C. Advanced avionics allow the pilot to navigate accurately, to strike or image enemy ground targets, and to destroy enemy aircraft. It's maintainability and multi-mission capability make it particularly well-suited to the needs of the MAGTF in an austere expeditionary environment.

PROGRAM STATUS: The first F/A-18D squadron stood up during FY-90 and the second will stand up during FY-91. A second Reserve A-4M squadron will transition to the F/A-18A in FY-91.

DEVELOPER/MANUFACTURER: McDonnell Douglas

Advanced Tactical Air Reconnaissance System (ATARS)

DESCRIPTION: The Advanced Tactical Air Reconnaissance System (ATARS) is a digital sensor suite designed to provide near real-time tactical intelligence. The ATARS suite will be comprised of low and medium altitude electro-optical sensors, an infrared sensor, tape recorders, and data link. The ATARS will be carried on the reconnaissance capable F/A-18D.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	16	15

OPERATIONAL IMPACT: Timely, accurate intelligence is vital to a MAGTF commander. Since the MAGTF may be operating independently without access to other tactical, theatre or national intelligence gathering assets, it requires an organic tactical air reconnaissance capability. The ATARS mounted on the medium range UAV and the F/A-18D will allow day and night near real-time intelligence to be provided to the MAGTF commander. The F/A-18D equipped with ATARS provides the capability to accomplish reconnaissance taskings without dedicating an airframe solely to the reconnaissance mission. The Hornet, with ATARS, will still retain all its capabilities as a superior strike fighter, with the exception of the nose gun which will be removed for installation of ATARS during reconnaissance missions. ATARS digital imagery sensors significantly reduce the support required over that required by film systems that increase logistical and manpower burdens on the MAGTF.

PROGRAM STATUS: The ATARS program funding is on track and provides for a total of 31 systems. IOC is scheduled for FY-94.

DEVELOPER/MANUFACTURER: Martin Marietta Corporation.



This F-18D “Hornet” is equipped with the ATARS suite which provides around the clock, near real-time intelligence with its advanced sensor and data link capabilities.

CH-53E “Super Stallion”

DESCRIPTION: This 3-engine, heavy-lift helicopter is designed to lift 16 tons over a 50 nautical mile (NM) combat radius using a dual point pendant system. It has a seven blade, 79-foot diameter main rotor head and a canted 20-foot diameter tail rotor. This shipboard-compatible assault support helicopter is employed for the movement of internal cargo, the recovery of tactical aircraft, and the external lifting of weapons and equipment. It is the free world’s largest helicopter.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	111	16	16

OPERATIONAL IMPACT: The CH-53E is the Marine Corps’ only heavy lift support helicopter. The CH-53E, along with the MLR and the LCAC, forms the cornerstone of an assault support force required for the tactical movement of heavy weapons and equipment during over-the-horizon amphibious assaults, subsequent operations ashore, or during expeditionary operations. The CH-53E provides the ground combat commander the operational flexibility to reposition artillery and LAVs, recover heavy equipment and aircraft, and deliver supplies and fuel to forward sites. The ability to self-deploy by use of air refueling enhances its deployment capability in support of expeditionary operations.

PROGRAM STATUS: Additional procurement will be required to meet the Marine Corps’ minimum heavy lift requirement of six operational squadrons of 16 CH-53E’s.

DEVELOPER/MANUFACTURER: Sikorsky Aircraft



AH-1W “Super Cobra”

DESCRIPTION: The AH-1W is a multi-mission, two-place (pilot and gunner/copilot), tandem-seat, twin-engine attack helicopter capable of land or sea-based operations. Its mission is to provide close-in fire support and fire support coordination under day/night and adverse weather conditions. Additional mission tasks include: armed escort for assault transport helicopters, point target/anti-armor operations, anti-helicopter operations, point and limited area defense against threat fixed wing aircraft, and armed and visual reconnaissance. The AH-1W has a turreted 20mm gun and is capable of firing 2.75"/5" rockets and a wide variety of precision guided weapons, to include: TOW/ HELLFIRE (anti-armor), SIDEWINDER (anti-air), and SIDEARM (anti-radar). Twin GE T-700 engines provide a quantum improvement in high/hot capability and safety of flight. The AH-1W Night Targeting System will incorporate a FLIR, video camera, automatic target tracking, and laser range finder/designator into the current M-65 telescopic sight unit, providing night/adverse weather TOW and autonomous HELLFIRE capability.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	92*	12	12
(* Does not include NG&RE funded aircraft)			

OPERATIONAL IMPACT: The AH-1W is the Marine Corps’ only attack helicopter. The multi-mission versatility of the Super Cobra provides the MAGTF commander with a significant force multiplier in both offensive and defensive ground combat. Improved night attack capability provided by the Night Targeting System is critical for round-the-clock, close-in fire support.

PROGRAM STATUS: In addition to AH-1W new procurement, 42 AH-1T’s have been funded for conversion to AH-1W. This will bring total funded inventory to 120 AH-1W’s to support seven active duty squadrons including one training squadron. Additional procurement will be required to meet the Marine Corps’ minimum attack requirement for the active/ reserve squadrons plus training, pipeline, and attrition aircraft.

DEVELOPER/MANUFACTURER: Bell Helicopter Textron



Marine Aviation Modifications

DESCRIPTION: The requirement to expand capabilities and improve safety in a constrained fiscal environment dictate the need to modify existing aircraft in lieu of new procurement. Due to keen competition for resources within naval aviation, the CMC has established the following modification priorities:

Modification	Rationale
Night Enhancements	Warfighting and safety
CH-46 Dynamic Components	Safety and service life
AH-1T to AH-1W Conversion	Warfighting (enhanced anti-armor)
CH-46 Block Upgrade	Warfighting (extended range)
VH-3D SLEP	Extend service life of Presidential helicopters

PROCUREMENT PROFILE: This chart depicts the status of Marine Aviation night enhancements, the dividends from these are disproportionate to their modest cost. All the night enhancements reflected below are incorporated in the new production F/A-18s being delivered to the Marine Corps to make them fully night attack capable.

Required Equipment	AV-8B	CH-46	CH-53	UH-1N	AH-1W	OV-10	CH-130
Global Positioning System	X	X	X	X	X	X	X
Night Attack/Targeting	1	NME	NME	NME	X	X	NME
Night Vision Goggle							
Cockpit Lights	X	X	X	X	X	X	X
NVG Heads Up Display	1	X	X	X	X	NME	O
Anti-jam Radio	X	X	X	X	X	O	X
Automatic Target Hand Off System	X	NME	NME	NME	O	NME	NME
Infra-red External Lights	X	X	O	O	X	O	O

NME – Not mission essential
O – Funding undefined

X – Program ongoing
1 – Partial Capability

OPERATIONAL IMPACT: The MAGTF must be prepared to respond whenever and wherever U.S. interests are threatened across the spectrum of conflict. Night enhancements provide a competitive advantage by degrading threat capabilities during night and adverse weather conditions. The CH-46E and AH-1W Cobra are key to the Corps’ forcible entry capability and to the conduct of subsequent operations ashore. Accomplishment of the above modifications is essential to Marine aviation and its role in support of MAGTF missions.

PROGRAM STATUS: The modification schedule is dependent upon contractual negotiations, depot workload and funding. Nominally, there is a two-year leadtime between modification kit procurement and FMF introduction.

DEVELOPER/MANUFACTURER: Various.

Unmanned Air Vehicle (UAV)

DESCRIPTION: This program enhances the Marine Corps' ability to meet requirements to provide target acquisition, battlefield surveillance, reconnaissance, radio relay, and Communications Electronic Countermeasures (CECM) capability in support of the MAGTF. The Marine Corps is operating the Pioneer Remotely Piloted Vehicle (RPV) System as an interim surveillance and target acquisition system. A Pioneer RPV System is comprised of eight air vehicles, associated payload packages, a ground control station (GCS), a portable control station (PCS), and two remote receiving stations and launch/recovery subsystems. The Marine Corps has requirements for all four categories of UAV's; Short Range, Close Range, Medium Range, and Endurance.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	6	0	3

OPERATIONAL IMPACT: The MAGTF commander requires timely intelligence and surveillance of the enemy situation. The Marine Corps has a long standing interest in developing a UAV capability for unmanned aerial target acquisition, surveillance, reconnaissance, radio relay, and communications electronic countermeasures. The UAV provides those capabilities in high threat scenarios where the use of expensive manned aircraft and highly trained crew members may be imprudent.

PROGRAM STATUS: UAV system research and development was assumed by the Joint UAV Program Office in FY-88. A contract was let for two prototype short range systems in September 1989. After testing, the winning contractor will produce 18 systems for the Marine Corps. A contract was let for the medium range version in June 1989, with deliveries to the Marine Corps starting in 3rd Quarter FY-96.



Marine Tactical Command and Control System (MTACCS)

DESCRIPTION: MTACCS is a concept that will provide MAGTF commanders the capability to receive, process, filter, and display data so that it is presented as usable information for tactical decision making. It is a comprehensive automated tactical system that will consist of a common family of hardware, standard operating system and operational and functional software developed to common standards. The system will also provide connectivity to the digital communications “backbone” of the Marine Corps. MTACCS is the umbrella concept that will pull together all of the disparate functional areas of the battlefield. The component systems of MTACCS are:

MAGTF C2

Tactical Combat Operations (TCO) – As the hub of MTACCS, TCO will be the focal point of MAGTF command and control. It will provide the automation required by the MAGTF and subordinate commanders to receive, fuse, display, and disseminate selected input from the other component C2 systems. Additional attributes of TCO include: automated message handling; dissemination of operation orders and associated overlays; display of current friendly and enemy tactical situation; and interface with local and wide area networks. TCO will be used by commanders in the MAGTF Command Element and at all levels in the GCE, ACE, and CSSE.

GROUND

Multi-service Advanced Field Artillery Tactical Data System (MAFATDS) – MAFATDS will provide automated support for fire support coordination and tactical fire direction functions at Fire Support Coordination Centers (FSCCs) and Fire Direction Centers as well as to the supporting arms special staff. It will enhance the coordination and employment of surface and air delivered fires. Moreover, MAFATDS will interface with the Position Location Reporting System (PLRS) as the entry point of its position location information to MTACCS.

TCO – A downsized version of TCO is planned for regimental and battalion Combat Operation Centers.

AVIATION

Marine Air Command and Control System (MACCS) – This system provides the Tactical Air Commander automated support to exercise control over MAGTF air operations. MACCS equipment includes the advanced Tactical Air Command Central (ATACC), the Tactical Air Operation Module (TAOM), and the Improved Direct Air Support Center (IDASC). The ATACC is the interface system with the MAGTF Command Element and will provide the integrating link for sharing data from MACCS into TCO.

INTELLIGENCE

Intelligence Analysis System (IAS) – Several systems compose the intelligence system for the MAGTF commander. Of these, the IAS is the fusion center that processes all-source information concerning the enemy, weather, and terrain. IAS will have provisions for communications links with other intelligence systems, including the Technical Control and Analysis Center (TCAC), the Tactical Electronic Reconnaissance Processing and Evaluations System (TERPES), and the Joint Service Imagery Processing System (JSIPS).

COMBAT SERVICE SUPPORT

Marine Integrated Logistics System (MILOGS) – MILOGS will support the MAGTF commander and his staff with automated, near real-time logistics data. Interfacing with TCO, MILOGS will give the commander and G-4/S-4 improved visibility of logistics assets. MILOGS will also use common hardware and build upon MAGTF II/Logistics Automated Information Systems (LOG AIS) software.

MAGTF II/LOG AIS is a family of eight microcomputer-based, coordinated, mutually supporting automated systems. These systems will support war planning in deliberate and time-sensitive situations, and war execution from initiation of mobilization/deployment through employment in an assigned area of responsibility. Component systems include the a war planning model (MAGTF II), the Transportation Coordinators' Automated Information for Movements System, a Computer-Aided Embarkation Management System (CAEMS), a Computer-Aided Load Manifesting (CALM) system, a Terminal Operations Management System/Cargo Management Subsystem, the Landing Force Asset Distribution System, MAGTF Deployment Supporting System II, and a MAGTF Data Library.

PROGRAM STATUS: MTACCS meets the description and requirements of a program that lends itself to Evolutionary Acquisition. This permits an early fielding of existing capabilities or components under development, and initial period of operation by the user, and allows for refinement of requirements based on user experience and recommendations. The Marine Corps is planning a series of assessments of MTACCS starting in the current fiscal year. These will involve FMF units to incorporate the Fleet's comments and to ensure that MTACCS meets the user's requirements. This will be another step towards ensuring MTACCS provides the capability to combine desired information from individual systems into an integrated system in support of MAGTF commanders.

Global Positioning System (GPS)

DESCRIPTION: GPS is a space-based radio navigation system that provides precise user location, (less than 16 meters spherical error probability), accurate velocity, and reference time anywhere on or near the earth. Signals are received from multiple satellites, processed, and displayed to the operator in Military Grid Reference System, Universal Transverse Mercator, or any of 45 datums in latitude and longitude. Small units, vehicles, ships and aircraft will be able to rapidly determine their positions and navigate to any destination during periods of reduced visibility and in featureless terrain. The Marine Corps emphasis is on the development/procurement of the manpack/vehicular variant which will be used by air, ground, and combat service support elements.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	130	117

OPERATIONAL IMPACT: With the capabilities provided by GPS, combat and combat support units will provide significant enhancement over manual navigation methods (map/compass). It will greatly enhance the establishment of the PLRS network, and the emplacement of radars, artillery and missiles will be improved significantly since reference points will not have to be surveyed manually. Aviation GPS receivers will enable all weather, over-the-horizon assault aircraft to arrive at exact locations and precisely deliver ordnance on target.

PROGRAM STATUS: The NAVSTAR GPS is a joint service program with the Air Force acting as lead Service.

DEVELOPER/MANUFACTURER: At the present time there are three manufacturers under contract with the GPS Joint Program Office to produce various man-portable receivers. They are Rockwell-Collins, Texas Instruments and Trimble Navigation.

Single Channel Ground and Airborne Radio System (SINCGARS)

DESCRIPTION: The SINCGARS family of Very High Frequency (VHF) radios will replace most VHF/FM manpack and mobile tactical radio communications currently in the Marine Corps. SINCGARS will provide anti-jam frequency hopping communications in the frequency range of 30.00 to 87.975 MHz with 25 KHz spacing. It is mission flexible for voice or data, plain or cipher text, and remote control operation. Using a combination of power selections and a frequency hopping electronic counter-countermeasures (ECCM) capability, SINCGARS features a low electronic signature to elude current enemy direction finding (DF) equipment.

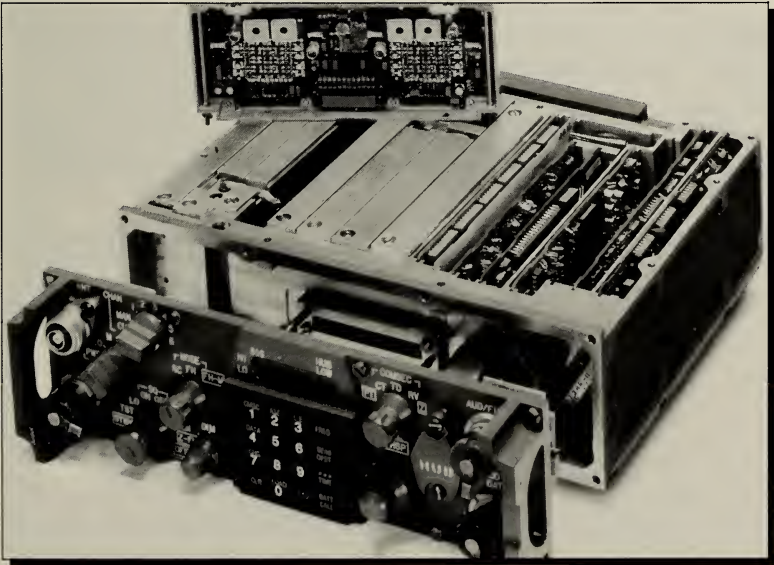
PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	2,318	2,111	3,935

OPERATIONAL IMPACT: The Marine Corps is relying upon radio equipment which is over 20 years old and is difficult to support. The present VHF/FM radios are vulnerable to exploitation and interception and are severely degraded when operated in a jamming environment. SINCGARS will accommodate interoperability in joint and combined operations. The new model will offer optimum capability for secure voice communication with minimum weight.

PROGRAM STATUS: The Marine Corps is buying the integrated Communications Security (ICOM) version of SINCGARS, an improved model of the current radio. Testing is scheduled for FY-91.

DEVELOPER/MANUFACTURER: ITT and General Dynamics/Tadiran



Advanced Tactical Air Command Central (ATACC)

DESCRIPTION: The ATACC replaces the current AN/TYQ-1 and AN/TYQ-3A, and provides significant operational and logistics enhancements. The ATACC system consists of two identical suites of equipment housed in four 8' x 8' x 20' shelters. Two electrically or physically joined shelters support a MEB Tactical Air Command Center (TACC), referred to as a suite. Two suites are capable of being electrically joined to support a MEF TACC. Each suite houses operator work stations, desktop communications units, data processors, computer programs, communications access devices, a large screen display, radios, and other equipment necessary to perform battlestaff functions. Utilizing NDI hardware and software, the ATACC will provide a state-of-the-art capability to command and coordinate tactical air operations, as well as automated mission planning, decision support and Air Tasking Order (ATO) processing and generation.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	0	1

OPERATIONAL IMPACT: The TACC is the senior Marine Aviation Command and Control System agency. The supervision and general control of all tactical air operations in the MAGTF area of responsibility are conducted in the TACC. The TACC also provides the Tactical Air Commander with the facilities and means to direct and coordinate organic aviation assets with other services, and/or nations. Additionally, the current TACC, fielded in 1972, is logistically insupportable and does not provide the needed automated mission planning for countering the threat of the 21st century.

PROGRAM STATUS: The system has completed Milestone I and II, and contract award was made in December 1988. The contractor has completed detailed system design and is in the process of integrating NDI hardware and software. Environmental tests were completed in December 1990 and road tests will commence early in 1991. IOC is scheduled for 4th Quarter FY-94.

DEVELOPER/MANUFACTURER: Grumman Data Systems, Springfield, VA

Joint Service Processing System (JSIPS)

DESCRIPTION: The JSIPS is a transportable, ground-processing facility designed to receive and exploit soft copy Infrared (IR) and Electro-Optical (EO) imagery from tactical aerial reconnaissance systems. It will also receive and exploit imagery from national and theater sources. Product improvement options include a Common Radar Processor to process both tactical and theater radars, and an automated capability to insert Mapping, Charting, and Geodesy products into JSIPS.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	0	1

OPERATIONAL IMPACT: Current Marine Corps capability for processing and exploiting imagery is dedicated to hard copy (film based) products. The thrust of technology is to near-real-time soft copy digital imagery, which is data linked from the sensor platform to the processing facility. Soft copy imagery exploitation allows the imagery interpreter to extract much more information than is normally attainable from film-based imagery. Data-linked digital imagery, computer enhanced soft copy image exploitation and the quantity of digital imagery expected to be available in the near future, require that the Marine Corps move forward in the acquisition of a soft copy processing facility capable of deploying with the MAGTF.

PROGRAM STATUS: Contract signed August 1987 to produce an Engineering Development Model (EDM) for delivery in FY-91.

DEVELOPER/MANUFACTURER: E-Systems, Garland, TX

Team Portable Communications Intelligence System (TPCS)

DESCRIPTION: TPCS is a modular, scalable, team-portable Signals Intelligence (SIGINT) system providing collection, analysis, reporting, and communications functions.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	0	3

OPERATIONAL IMPACT: TPCS will be a logical continuation of current manpack receiver and DF system acquisition efforts and will fill a void in current SIGINT direct support efforts, especially in the initial phase of the amphibious landing.

The radio battalions provide timely and accurate tactical SIGINT to the MAGTF commander. This support is currently performed by independent systems that are tied together via secure communications. TPCS will provide flexible intra/inter-system communication and a microprocessor terminal that will enable the radio battalion to provide direct support to the MAGTF commander when larger systems are not available or appropriate.

PROGRAM STATUS: Prototype integration of this NDI system began in 3rd quarter FY-89. TPCS testing is scheduled for 3rd Quarter FY-91 with a production decision expected during 4th Quarter FY-91.

DEVELOPER/MANUFACTURER: Harris Corp., Government Systems Sector, Melbourne, FL.

Mobile Electronic Warfare Support System (MEWSS)

DESCRIPTION: The MEWSS is an electronic warfare system capable of rapid mobility over all types of terrain. The MEWSS electronic suite consists of a direction finder set, a jammer, and intercept receivers installed in an LAV chassis. The system is designed to provide MAGTF commanders with the capability to detect and degrade enemy tactical communications during the amphibious assault and subsequent operations ashore.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	12	2 PIP	2 PIP

OPERATIONAL IMPACT: The Marine Corps currently has a limited light armored mobile electronic warfare capability. The MEWSS provides the ability to support mobile operations, both in the Amphibious Objective Area (AOA) and during subsequent operations ashore.

PROGRAM STATUS: The basic AN/MLQ-36 was completely fielded in FY-90. A product improvement program (PIP) has been initiated to upgrade the system capabilities to conduct operations against a wider frequency range and frequency-agile threats.

DEVELOPER/MANUFACTURER: Production Version: Diesel Division General Motors Company, Ontario, Canada. PIP: Watkins-Johnson Electronic Systems Division, Savage, Md.



Senior Warrior/Advanced Marine Airborne Signals Intelligence (SIGINT) System (AMASS)

DESCRIPTION: Senior Warrior/AMASS is an organic, C-130-based airborne collection and direction finding SIGINT package purchased under the Air Force's Senior Scout procurement program. It will provide the MAGTF commander with the capability to detect, identify, locate, and exploit, on a near real-time basis, enemy electromagnetic emissions that are a potential threat to expeditionary operations which are normally beyond the range of current ground-based SIGINT sensor systems.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	0	1	0

OPERATIONAL IMPACT: The bulk of the cryptologic direct support to the MAGTF is provided by the ground-based Radio Battalions. AMASS will fill a critical gap by providing integrated near real-time SIGINT beyond the ranges now possible with ground-based SIGINT collectors. Additionally, for the first time AMASS will provide the capability to exploit certain special command and control signals of unique interest to the MAGTF commander.

PROGRAM STATUS: As part of the Big Safari program, the Air Force is currently procuring three Senior Scout systems, the first of which has already been delivered. Utilizing the Air Force contract, the Marine Corps intends to buy two systems.

DEVELOPER/MANUFACTURER: Lockheed Aircraft Service Company, Ontario, CA.



This modified C-130 provides the MAGTF commander with an advanced signal intelligence gathering and processing capability which intercepts electronic signals and extends the battlefield, thus enabling the commander to quickly exploit his advantage.

AN/TYQ-19 Block Upgrade

DESCRIPTION: The AN/TYQ-19 block upgrade is a response to an identified FMF requirement to improve the Intelligence Analysis Center (IAC). This product improvement is called the Intelligence Analysis System (IAS). The IAS is a vital component of the Marine Air Ground Intelligence System (MAGIS), processing information from imagery systems, signals intelligence, airborne electronic reconnaissance, Navy, other Service, theater and National assets, and from other sources internal and external to the MAGTF. The bulk of the IAS's information is stored in a data base, currently the Naval Intelligence Processing System (NIPS) data base. NIPS will transition to the Defense Intelligence Agency's Integrated Data Base (IDB) by the end of FY-91.

The block 2 upgrade will field LAN-based microcomputer systems (Suite) for subordinate headquarters and single workstations at Bn/Sqn, while the block 3 upgrade will replace the existing IAC with a HMMWV-mounted shelter for the MEF/MEB.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	6	—	—
Block 2 Upgrade: Suites	—	25	28
Block 3 Upgrade:	—	—	—

OPERATIONAL IMPACT: The IAS will allow the system to use data from the IDB, will give it a mobility commensurate with the assigned unit, and will extend selected automated intelligence capabilities to organizations below the MEF level. The current IAC is so large as to severely limit mobility, making it impractical for use with anything less than a full MEF deployment. The upgraded IAS will include versions which are deployable with the MEB and with the MEU. The IAC must be upgraded to retain a national and joint (Navy) data base capability following the implementation of IDB in 1990-91.

PROGRAM STATUS: Three Block 2 prototype systems are currently being evaluated by the FMF. The results of this evaluation will be used to develop Block 2 Upgrade Suites for procurement and fielding in FY-92/93. The Block 3 Upgrade system and the stand alone workstation will be developed for procurement and fielding in FY-94/95.

DEVELOPER/MANUFACTURER: The IAS software is being developed by the Marine Corps. Naval Weapons Support Center, Crane, Indiana is integrating the hardware.

“WASP” Class (LHD)

DESCRIPTION: The “WASP” class (LHD) is a multi-purpose amphibious assault ship. The ship’s primary mission is to embark, deploy, and land elements of a Marine landing force in an amphibious assault by helicopters, landing craft, amphibious vehicles, or a combination of these methods. The LHD class has a secondary/convertible mission for sea control.

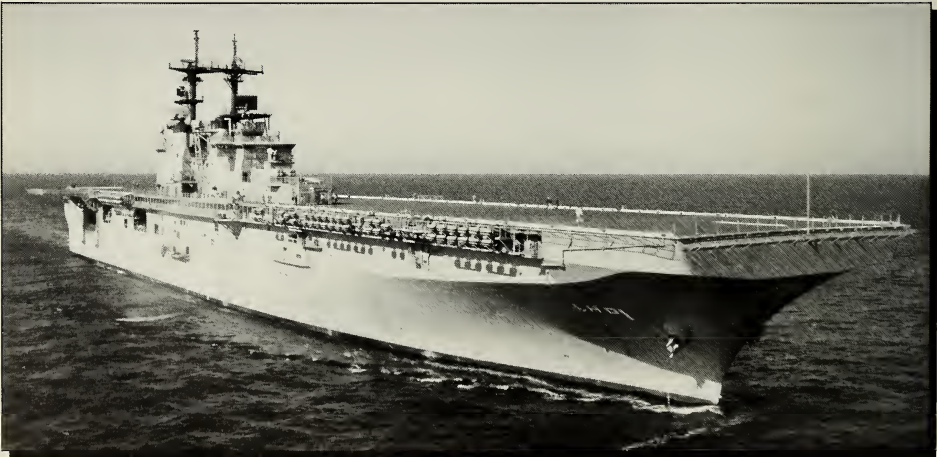
PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	5	0	0

OPERATIONAL IMPACT: The swift, forcible projection of our afloat Marine forces in the seizure or defense of: 1) advance naval bases for further operations, 2) land area dominating straits and narrow seas, and 3) strategic islands/peninsulas; is of obvious importance to any naval campaign; hence, the requirement for amphibious forces. In order to be successful, however, our commanders must have not only the necessary amphibious lift but also the flexibility to land the landing force by air or surface means. The LHD class provides this flexibility. The LHD will significantly increase the total lift capability by providing a flight deck for both helicopters and V/STOL aircraft and offering a well deck for both air-cushion and conventional landing craft.

PROGRAM STATUS: Contract awards for four LHD’s have been awarded for construction. LHD 1 (USS WASP) was commissioned on 29 July 1989. LHD 2 (USS ESSEX) keel layed March 1989, LHD 3 (KEARSARGE) keel layed February 1990 and LHD-4 (USS BOXER) keel laying is scheduled for April 1991. A fifth LHD is appropriated in the FY-91 budget. The 1990 DON Integrated Amphibious Operatons and USMC Air Support Requirements Study calls for a total of 7 LHDs to support 3 MEBs (AE).

DEVELOPER/MANUFACTURER: Ingalls Shipbuilding, Pascagoula, MS



DESCRIPTION: The LX is envisioned to be an LPD-like ship, optimized for operational flexibility and the lift requirements for each notional MAGTF (MEF, MEB, MEU). The notional LX as developed in the 1990 DON Integrated Amphibious Operations and USMC Air Support Requirements Study will carry 700 troops, and have a capacity of 25,000 square feet and 25,000 cubic feet of cargo.

PROCUREMENT PROFILE: The 1990 DON Integrated Amphibious Operations and USMC Air Support Requirements Study recommended LX construction begin in FY-95 with subsequent procurement at a rate greater than one per year.

Quantity: Using the notional LX fingerprint, 18 LX's would be required to accommodate an amphibious fleet sized to 3 MEB(AE)'s.

OPERATIONAL IMPACT: Current emphasis on regional contingencies and rapid deployment by the Navy/Marine Corps team increase the importance of amphibious lift assets. To overcome LPD and other block obsolescence shortfalls in the future, LX will provide the versatility of the LPD, LHA and LHD with its well deck and flight deck.

PROGRAM STATUS: The 1990 DON Integrated Amphibious Operations and USMC Air Support Requirements Study reaffirmed the LX requirement. In January 1990, the Navy requested a study to examine the requirement. Two studies were initiated with four other design alternatives identified for feasibility study/concept exploration. The LX Mission Need Statement was submitted in June 1990.

The LX Cost and Operational Effectiveness Analysis must consider a range of alternatives to fulfill the mission need identified by the DON and validated by the Joint Requirements Oversight Council.

Feasibility studies are underway leading to award for Detail Design and Construction of the lead LX in the mid-90's with initial ship delivery in the 2000/2001 timeframe.

DEVELOPER/MANUFACTURER: Not applicable.

Riverine Assault Craft (RAC)

DESCRIPTION: The RAC is an aluminum, mono hull, 35-foot craft powered by twin inboard diesel engines. It mounts a .50 caliber machine gun and a 40mm grenade launcher in fore and aft weapons stations. It also has port and starboard mounts for M-60 7.62mm machine guns. The boat provides a full complement of military and commercial electronics and navigation equipment. It is a non-developmental item utilizing an existing boat design that is compatible with all Navy and Marine Corps weapons systems, ammunition, fuel, and military communications/navigation components.

PROCUREMENT PROFILE:

	PRIOR	FY-92	FY-93
Quantity	7	8	9

OPERATIONAL IMPACT: This high speed, multi-purpose riverine craft is primarily for direct fire support and command and control. It can perform the additional missions of pursuit, armed escort, troop transportation, reconnaissance and screening, and intelligence activities. It will function as part of a larger MAGTF Riverine Force. The MAGTF Riverine Force will be capable of denying the use of river systems to hostile forces, and protecting friendly lines of communication in establishing complete control of the riverine area of operations.

PROGRAM STATUS: This program scheduled for the Milestone III production decision in July 1991.

DEVELOPER/MANUFACTURER: Sea Ark Marine, Inc.



Chapter 4

Resource Allocation Overview

The DoD Planning, Programming and Budgeting System (PPBS) is the framework within which decisions are made that shape the character and capabilities of our forces. Marine Corps participation in the PPBS provides a vigorous process for requirements determination and validation, comparison of competing alternatives, continuous review and assessment of ongoing programs, and eventually the resources needed to execute approved programs. Plans emerge from operational requirements, formal guidance and policies. Planning determines the Marine Corps force structure and capabilities necessary to support assigned roles and missions in support of national security objectives.

Programs supply resources to the most essential capabilities contained in the plans. Programming connects the plans to the budget. Programming translates plans and their supporting requirements into specific and discrete components of personnel, materiel, systems and resources that permit execution of approved programs within expected fiscal limits. Through a variety of forums the programming process compares Marine requirements against priorities and resources. The programs as approved by SecDef constitute the Service's input into the budgeting cycle. Budgets are submitted through a series of reviews and eventually form a portion of the Presidential Budget Submit. This proposed budget is then authorized and appropriated to finalize allocation of resources to these programs.

FIGURE 4-1

OVERVIEW OF PLANNING, PROGRAMMING AND BUDGETING SYSTEM (PPBS)

- Planning
 - Assess the threat
 - Develop strategy and policy
 - Develop force planning guidance
 - Present required capabilities in the MMP in order of priority within and between mission areas
- Programming
 - Translate master plan content into achievable program package in accordance with planning priorities
 - Apply fiscal and resource constraints
 - Develop the Future Years Defense Program
- Budgeting
 - Translate program decisions into budget justification format
 - Review programs for executability and acquisition strategy

Marine Corps Planning and Programming

The Marine Corps plans and programs within the DoD PPBS through development of documents comprising the Joint Strategic Planning System (JSPS), strong participation in the Navy program planning process, and development of internal Marine Corps long-range, mid-range, and short-range plans. The interrelationships between the JSPS and the Marine Corps strategic planning process are displayed in Figure 4-2. Close and continuous coordination and active participation by all concerned maximize the Marine Corps contribution to national military strategy.

Marine Corps Planning

The Marine Corps' Service Planning System functions within a Concept-Based Requirements System (CBRS). CBRS provides focus, direction, and articulation of the force development process. The plans produced from this process generate the major aspects of the planning portion of PPBS and are thus critical to program development. Integral to this planning process is the continual assessment of the threat, technology advances, and the development of concepts, strategies, and solutions which establish and maintain combat ready MAGTFs. The Marine Corps Service Plans focus the entire Marine Corps on future warfighting requirements, both FMF and the Supporting Establishment, and the transition from present to future capabilities. The participation of the FMF in the planning process strengthens Marine Corps decision-making by ensuring that our plans are more vigorously developed and consider operational requirements before the commencement of program development. Additionally, this planning framework ensures continuity between mid-range objectives and long-range goals, and provides for the continuing reevaluation of those objectives and goals. The Marine Corps Service Plans are:

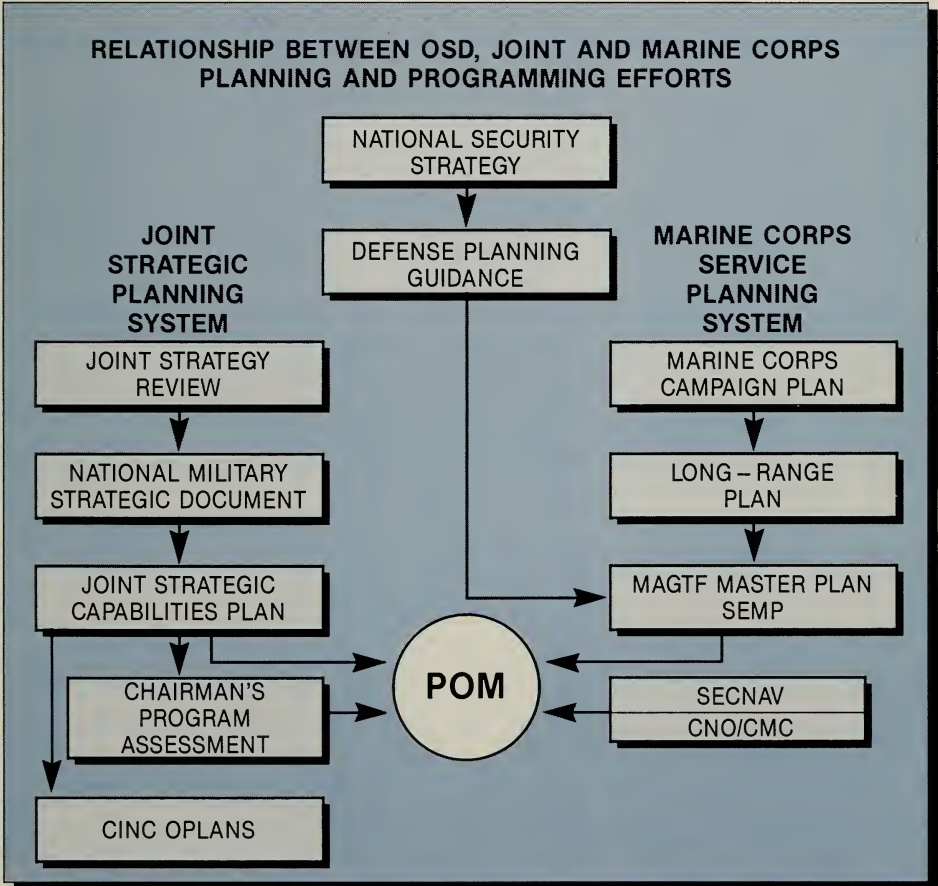
The **Marine Corps Campaign Plan (MCCP)** is the foundation document for Marine Corps Service planning. It frames the Commandant's guidance which reflects defense policies, CINC requirements, national security strategies, and the fiscal and political constraints derived from the Defense Planning Guidance. It provides CMC's insight into the Nation's security needs and priorities based in part on his exposure to the President, the Cabinet, the JCS, and the CNO among others. The MCCP steers the application of Marine Corps resources to achieve capabilities which best serve the national interest. It is an overarching document, broad in scope, which educates the entire Marine Corps.

The **Marine Corps Long-Range Plan (MLRP)** is an explanation of concepts and goals considered essential for the Marine Corps to accomplish its mission 10 to 30 years into the future. It is based upon the Commandant's guidance, the future threat, and technology research. The MLRP makes general assumptions and projections about the operational environment of the future. It describes future national strategies and how the Marine Corps supports those strategies through military capabilities. It presents, through classified annexes, future technologies with military potential, and a global threat assessment.

The **MAGTF Master Plan (MMP)** establishes the operational foundation for the organization, manning, equipping, training, and development of doctrine and operational techniques for MAGTFs. It addresses the mid-range period (2 to 10 years) and provides resource allocation guidance. The MMP provides guidance for the development of detailed subordinate plans that identify in detail the actions needed in doctrine, training, organization, and equipment to ensure that MAGTFs have the capability described in the MMP. In this way, programming of new equipment and weapon systems initiatives will be directly linked to operational planning. The MMP identifies prioritized MAGTF requirements for introduction into the PPBS.

The **Supporting Establishment Master Plan (SEMP)** is the non-FMF counterpart to the MMP. Developed concurrently with the MMP, it ensures proper consideration of all non-FMF resources to achieve maximum possible support of the goals of the MMP. The objectives detailed in the SEMP provide guidance for program development for the non-FMF and supporting establishment. The DC/S Installations and Logistics (I&L) is responsible for the SEMP.

FIGURE 4-2:



Marine Corps Programming

The Deputy Chief of Staff for Requirements and Programs is responsible for development of the Marine Corps' input to the Department of the Navy Program Objective Memorandum (DON POM). The Marine Corps POM is developed in response to the DPG and the MAGTF Master Plan. In addition to these documents, the POM incorporates the goals and objectives expressed during the program development cycle by the Commandant of the Marine Corps and the Secretary of the Navy's DON Consolidated Planning and Programming Guidance.

Close, continuous coordination with the Navy staff and vigorous participation in their program planning process by all commands and staff agencies is vital to the success of the Marine Corps program.

The essence of programming is fitting the demands and requirements of our plans within available resources in such a manner that produces the most capability. The full and energetic participation of all staff agencies and commands permits consideration of all factors, both internal and external, and develop the optimum program strategy for the Marine Corps.

Financial Resources

Financial resources are the funds that are programmed, budgeted, appropriated, obligated, and finally expended to cover service investment and operational requirements. Total Obligational Authority (TOA) refers to the total financial resources available to DoD. The DoD PPBS establishes the ground rules for the allocation of the DoD TOA. Displayed below in Figure 4-3 is the TOA for all of DoD from FY-87 through the FY-92/93 Presidential Budget:

FIGURE 4-3:

	<u>FY-87</u>	<u>FY-88</u>	<u>FY-89</u>	<u>FY-90</u>	<u>FY-91</u>	<u>FY-92</u>	<u>FY-93</u>
\$ Billions	279.5	283.7	290.8	291.3	273.0	278.3	277.9

There is a general perception that Defense spending has grown dramatically over the past few years. As can be seen in Figure 4-4, the TOA allocated to the Defense Department has been steadily declining in real terms over the past 5 years. Viewed in broader terms defense spending as a percentage of federal spending and Gross National Product has also decreased. In fact, defense spending as a share of government outlays is near its lowest point in 50 years. Data to support this trend is depicted in Figure 4-5.

FIGURE 4-4:

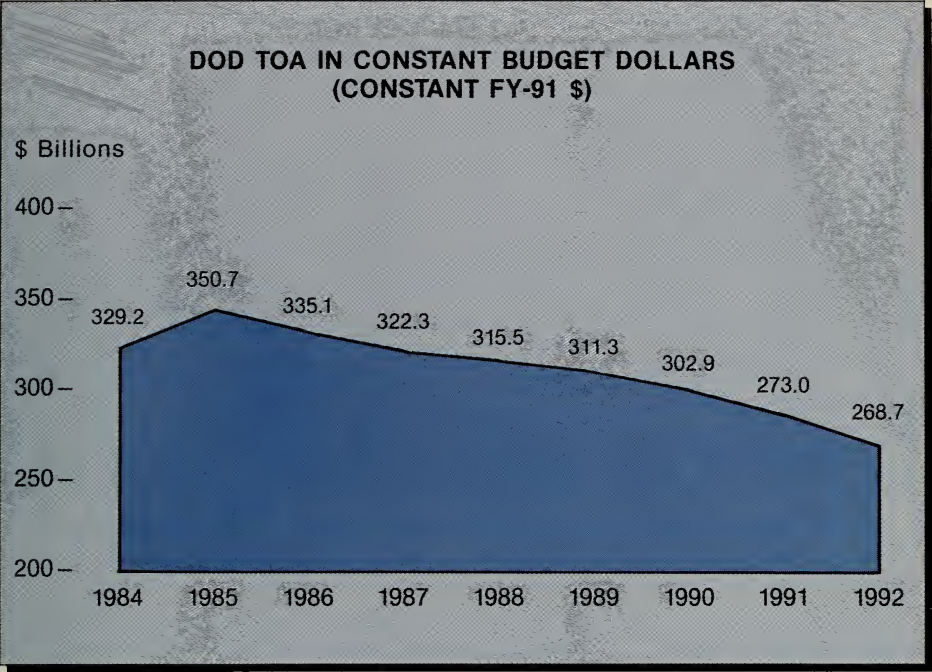


FIGURE 4-5:

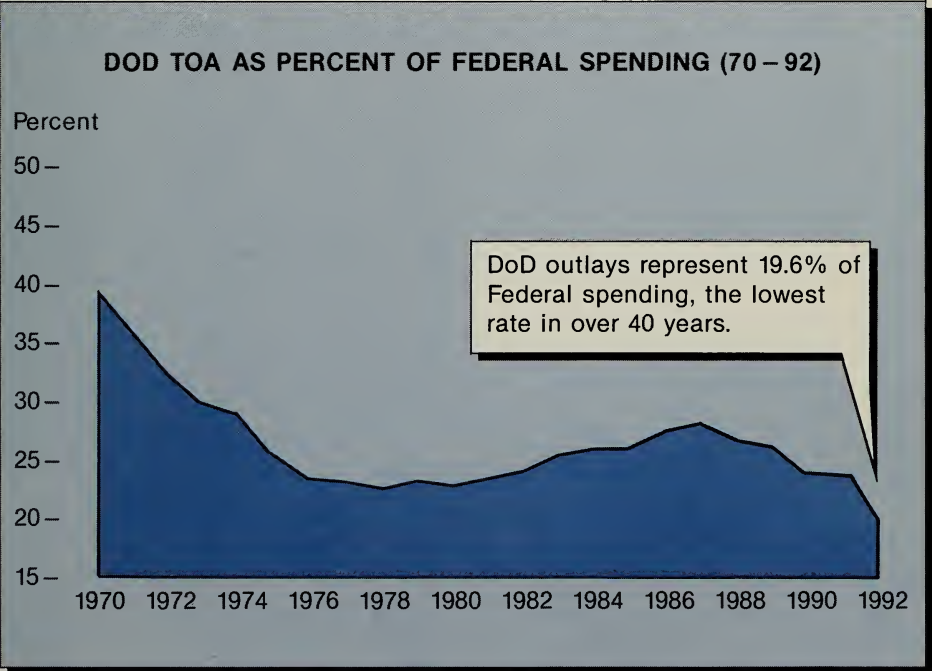
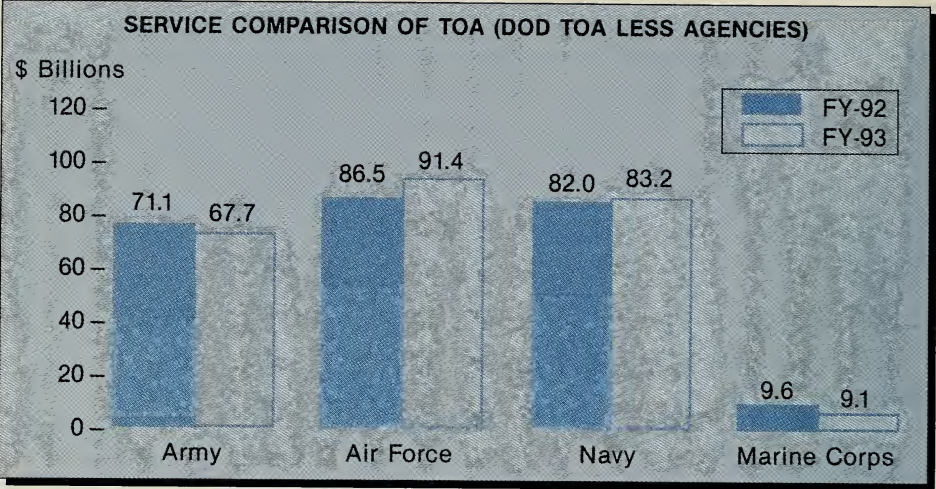
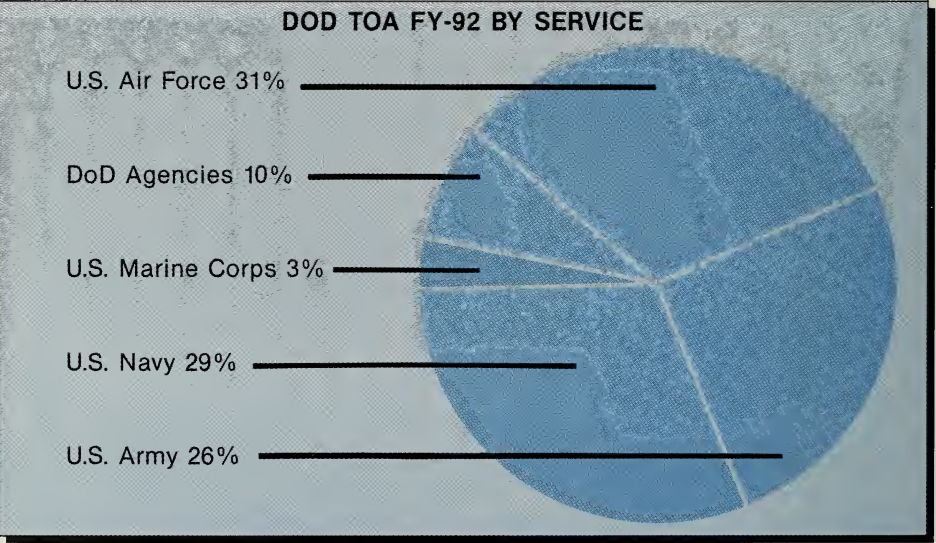


FIGURE 4-6:



Displayed above in Figure 4-6 is a comparison of the total resources allocated to each Service in the FY-92 and FY-93 budget. The Marine Corps leads in converting its share of the Budget into credible combat power. Figure 4-7 depicts the percentage of DoD funds budgeted by each service/agency. Each Service's total funding is known as TOA. This TOA is subsequently divided into appropriations.

FIGURE 4-7:



The Marine Corps, in addition to its own allocation of the DON budget, directly benefits from portions of the Navy TOA. When considering these resources, including naval aviation, ship building, and research and development (R&D) funding, the Marine Corps share of the DoD TOA is about 4.8 percent.

Appropriations

An appropriation is the legal apportionment by an act of Congress to incur obligations for specified purposes and to make payments from the Treasury of the United States. Funds may be expended only for the purpose for which appropriated. Following are the USMC appropriation titles with a brief synopsis of what each provides:

- **Military Personnel, Marine Corps (MPMC)**

For pay, allowances, individual clothing, interest on deposits, expenses for organization movements and expenses of temporary duty travel between permanent duty stations.

- **Reserve Personnel, Marine Corps (RPMC)**

For pay, allowances, clothing, subsistence, gratuities, travel, and related expenses for personnel of the Marine Corps Reserve on active duty.

- **Operation and Maintenance, Marine Corps (O&MMC)**

For expenses necessary for support of the FMF, civilian employee pay, travel and transportation, training, consumable supplies, recruiting and advertising, base operations and base communications and subsistence.

- **Operation and Maintenance, Marine Corps Reserve (O&MMCR)**

For expenses necessary for the operation and maintenance, including training, organization and administration of the Marine Corps Reserve; repair of facilities and equipment; hire of passenger motor vehicles; travel and transportation; and communication.

- **Procurement, Marine Corps (PMC)**

For expenses necessary for the procurement and manufacture of ammunition, weapons and tracked combat vehicles, guided missiles and equipment, communications and electronics, support vehicles, engineer and other equipment and spare and repair parts.

The following are Navy appropriations of which the Marine Corps programs its share. These appropriations are divided into the blue/green (Navy/Marine Corps) split.

- **Military Construction, Navy (MCON)**

For acquisition, construction and installation of permanent public works, naval installations and facilities for the Navy and Marine Corps.

- **Family Housing, Navy and Marine Corps (FHN(MC))**

For the construction, maintenance, repair and design of Navy and Marine Corps housing and ancillary facilities required by bases and stations.

- **Navy Stock Fund (NSF)**

For the procurement of stock funded War Reserve Materiel required to achieve a materiel support posture to provide war reserve asset levels and inventory objectives for combat-critical items. Examples include: supplies, minor items of equipment, and parts used in the manufacture, assembly or repair of items of equipment.

- **Military construction, Navy Reserve (MCNR)**

For construction, acquisition, expansion, rehabilitation, and conversion of facilities for the training and administration of the reserve components of the Navy and Marine Corps.

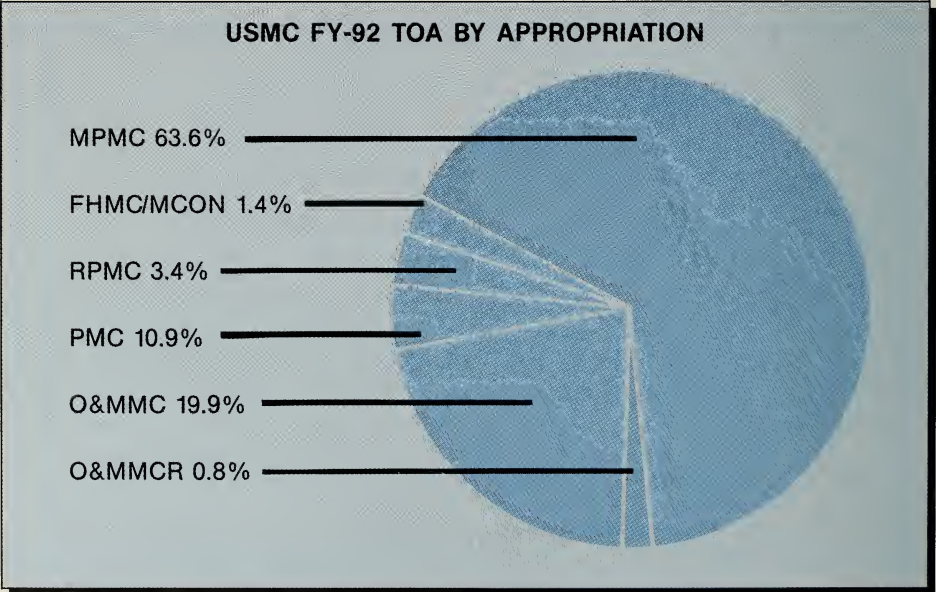
In addition to the resources controlled by the Navy, the Marine Corps manages its own allocation of available resources which are divided into major appropriations. A display of the TOA in millions of dollars allocated to each of these appropriations is displayed below:

FIGURE 4-8:

MARINE CORPS TOA						
Current Year \$						
	<u>FY-88</u>	<u>FY-89</u>	<u>FY-90</u>	<u>FY-91</u>	<u>FY-92</u>	<u>FY-93</u>
MPMC	5,563	5,719	5,794	5,919	6,067	6,101
RPMC	294	315	315	336	327	330
O&MMC	1,831	1,856	1,809	1,948	1,895	1,740
O&MMCR	69	78	77	86	76	75
PMC	1,276	1,292	1,075	690	1,039	651
NSF(MC)	21	32	21	27	0	0
FHMC	158	156	151	132	131	113
MCON	235	279	162	137	95	153
MCNR	<u>23</u>	<u>4.7</u>	<u>16</u>	<u>9</u>	<u>5</u>	<u>3</u>
TOTAL	9,470	9,732	9,391	9,195	9,635	9,166

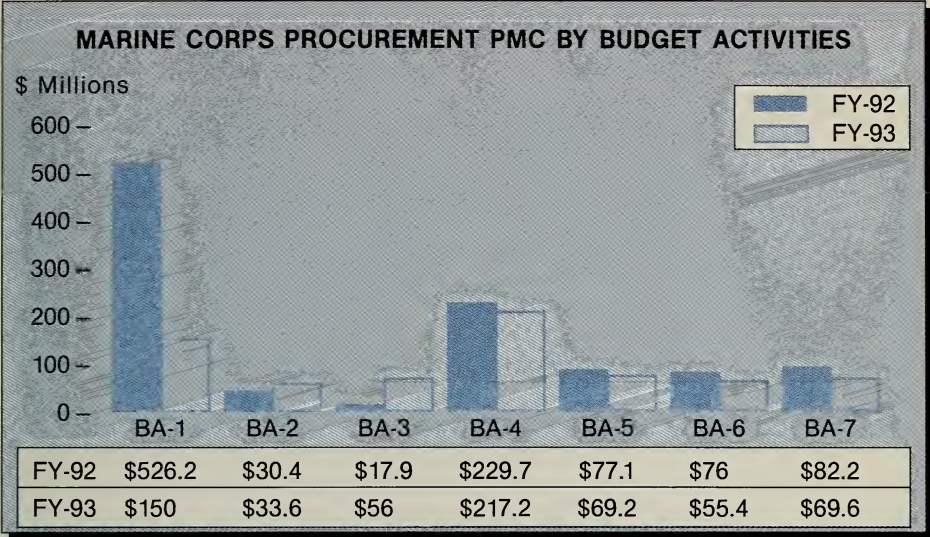
The allocation of Marine Corps resources to specific appropriations for FY-92 is shown in Figure 4-9 below:

FIGURE 4-9:



The Marine Corps procurement request for FY-92 is \$1,039 million. Figure 4-10 depicts how the Marine Corps procurement resources is allocated to budget activities for the FY-92/93 Biennial Budget.

FIGURE 4-10:



- BA - 1: AMMUNITION

BA - 2: WEAPONS AND COMBAT VEHICLES

BA - 3: GUIDED MISSILES AND EQUIPMENT

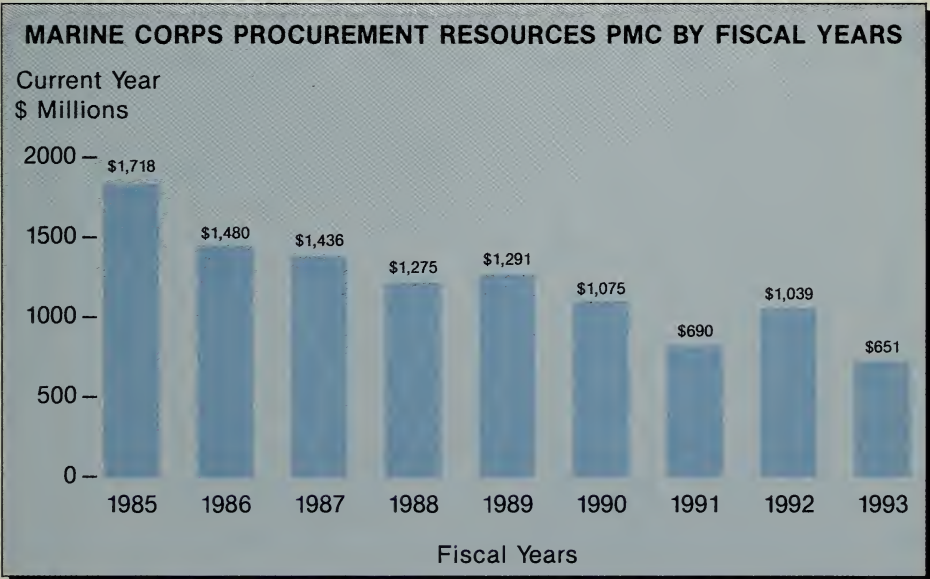
BA - 4: COMMUNICATIONS AND ELECTRONICS EQUIPMENT
- BA - 5: SUPPORT VEHICLES

BA - 6: ENGINEER AND OTHER EQUIPMENT

BA - 7: SPARES AND REPAIR PARTS

Figure 4-11 depicts the PMC appropriation over the past several years.

FIGURE 4-11:



The two most important elements within the Marine Corps' current budget request are the Manpower or MPMC appropriation and the Operation and Maintenance (O&MMC) account. These two appropriations support our military personnel, readiness, and operations programs. A relative breakout of the appropriations are displayed in Figures 4-12 and 4-13 below.

FIGURE 4-12:

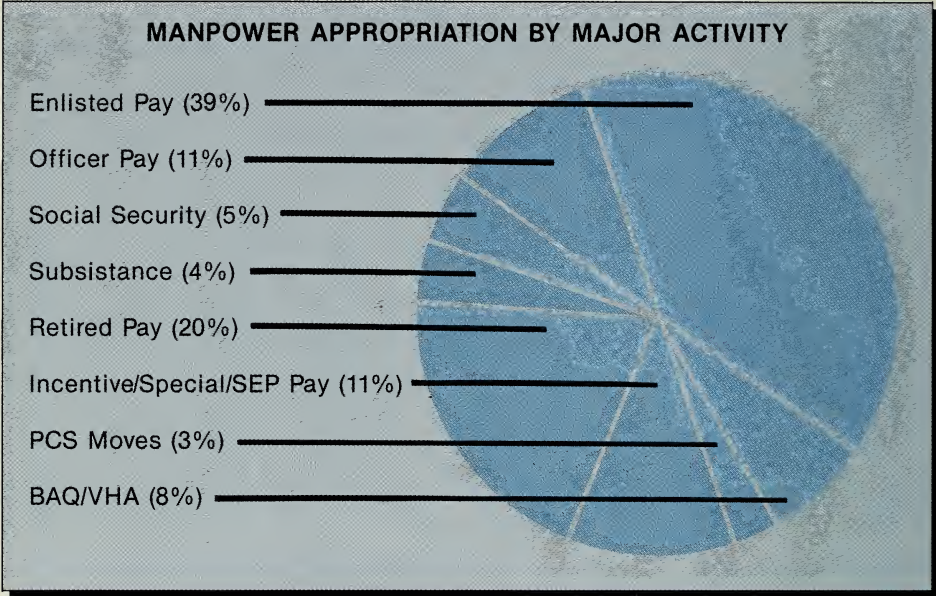
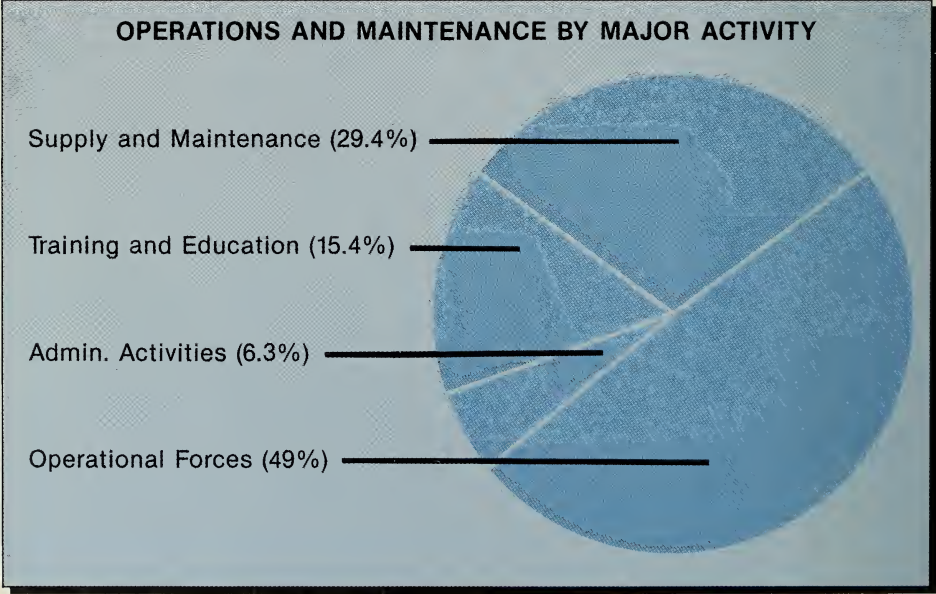


FIGURE 4-13:



The Operation and Maintenance, Marine Corps budget request of \$1,895 million represents, in real terms, a decline of 3.1 percent over FY 1991.

Fleet Marine Force and Base operating costs are grouped under Operational Forces, the largest portion of the O&M appropriation. Adequate funding for the supporting establishment is essential to the readiness of the Fleet Marine Forces. The supporting establishment provides the housing, feeding, training ranges/areas, and other essential facilities and services to support operational and training requirements and provide for the welfare of our Marines and dependents. The maintenance of this infrastructure is essential to the maintenance of an acceptable quality-of-life for our Marines while ensuring an adequate working and training environment.

Supply and Maintenance provides the essential logistics functions which allow us to maintain the readiness and sustainability of the weapons and equipment utilized by our Forces. Our logistics bases provide supply support and depot level maintenance to sustain the daily operations of the Fleet Marine Force, as well as the weapons and equipment maintenance for the Maritime and Geographic Prepositioning Programs. The budget request provides continued support for this vital program through the replenishment, modernization, and replacement of equipment during the MPS maintenance cycle. Also funded under this program is the transportation of material to and from the Marine Corps Logistics Bases, and in support of the prepositioning program.

The O&MMC request also supports our training and education activities. The Commandant has emphasized that every Marine must be educated and proficient in the science and art of warfighting. To accomplish this, our program ensures that every Marine is either attending a formal school or participating in a structured self-study program.

Summary. Key elements of the O&M account will:

- Provide the training, equipment, and logistics support to develop unit skills and highly ready, combat effective units.
- Provide for the professional education and development of all Marines in the art and science of warfighting.
- Provide for the operation and support of our bases and stations, maintain efficient mission support facilities, and support the quality-of-life our Marines and their families deserve.

Research and Development

The Marine Corps manages its share of the Navy Research, Development and Testing (RDT&E, N) appropriation. Last year, \$269.7 million was appropriated for the FY 1991 Marine Corps RDT&E,N budget. Our FY 1992 request is \$267.4 million.

Although our R&D budget is austere, it is a critical component of maintaining the Corps as the world's premier expeditionary force. It provides our air-ground-logistics forces with weapons systems and warfighting equipment required for a lighter, more flexible capability, and permits a formidable military response in the most likely spectrums of conflict.

Our entire development and acquisition process has been significantly improved by the formation of the Marine Corps Research, Development and Acquisition Command (MCRDAC) in FY 1988. Lines of authority are more clearly delineated between the program managers and the Principal Executive Officer. With a concept-based requirements system, MCRDAC program managers are strongly linked to counterparts in the Marine Corps Combat Development Command who are charged with expressing the requirements of the FMF. Our common goal is to find the most cost effective weapons systems and warfighting equipment available to meet the threat.

Because of fiscal constraints, we must concentrate on development and acquisition of economical and quality equipment which will provide the greatest leverage for future combat capability. We recognize that we can no longer modernize at the same pace as in the 1980's. The equipment we choose must be affordable, light, and highly mobile, and able to defeat any adversary. Although technologically complex, the equipment must be simple to operate and inexpensive to maintain. Our acquisition strategies will continue to emphasize innovation, quality, and extensive testing and competition.

R&D dollars represent an investment in our future. Through the acquisition streamlining process and the use of non-developmental items, we have significantly accelerated the acquisition process from inception to fielding. We continually scan for technologies that have already been developed and then tailor them to meet our specific needs.

We acknowledge that resources will be scarcer even though we do not expect the roles and missions of an expeditionary Marine Corps to diminish. That means we have to be smarter.

The chart below depicts the highlights of our FY-92 research and development program:

FIGURE 4-14:

MAJOR R&D PROGRAMS (\$M's)			
<u>PROGRAM</u>	<u>FY-91</u>	<u>FY-92</u>	<u>FY-93</u>
AAA	17.8	67.7	54.5
SCRE	16.2	12.0	18.5
AAV-7A1	9.6	4.0	3.1
LAV-105	18.4	19.0	9.8
LAV-AD	17.9	5.0	2.9
JSIPS	13.2	14.4	9.8
IAS	7.8	5.0	2.2
TERPES	8.5	5.1	7.9
TCO	0	6.7	2.9
MAFATDS	2.1	8.0	8.5
ATACC	2.9	6.8	0

For approximately 3 percent of the Navy RDT&E budget request, we support a potent, expeditionary Marine Corps with a continuing reputation for innovation and adaptation. We will continue to focus on critical capabilities as our funding decreased. Continued investment in applied technology is critical to future warfighting capability.

Appendix A

Glossary

AAAV

ADVANCED AMPHIBIOUS ASSAULT
VEHICLE

AAV

ASSAULT AMPHIBIOUS VEHICLE

AAWS-M

ADVANCED ANTITANK WEAPON
SYSTEM-MEDIUM

ACE

AVIATION COMBAT ELEMENT

ACF

AIR CONTINGENCY FORCE

ADP

AUTOMATED DATA PROCESSING

AE

ASSAULT ECHELON

AFOE

ASSAULT FOLLOW-ON ECHELON

AIS

AUTOMATED INFORMATION SYSTEM

AMASS

ADVANCED MARINE AIRBORNE SIGNALS
INTELLIGENCE SYSTEM

AOA

AMPHIBIOUS OBJECTIVE AREA

APN

AIRCRAFT PROCUREMENT, NAVY

APPN

APPROPRIATION

ARBS

ANGLE RATE BOMBING SYSTEM

ATACC

ADVANCED TACTICAL AIR COMMAND
CENTRAL

ATARS

ADVANCED TACTICAL AERIAL
RECONNAISSANCE SYSTEM

ATD

ADVANCED TECHNOLOGY
DEMONSTRATION

ATF

AMPHIBIOUS TASK FORCE

AVN

AVIATION

BEQ

BACHELOR ENLISTED QUARTERS

C2I

COMMAND, CONTROL AND
INTELLIGENCE

C4

COMMAND, CONTROL,
COMMUNICATIONS AND COMPUTER
SYSTEMS

CAL

CALIBER

CAM

CHEMICAL AGENT MONITOR

CATF

COMMANDER AMPHIBIOUS TASK
FORCE

CAX

COMBINED ARMS EXERCISE

CBRS

CONCEPTS BASED REQUIREMENTS
SYSTEM

CE

COMMAND ELEMENT

CECM

COMMUNICATION ELECTRONIC
COUNTERMEASURES

CEP

CIRCULAR ERROR PROBABLE

CG

COMMANDING GENERAL

CHG PROP WB
CHARGE PROPELLENT WHITE BAG

CI
COUNTERINTELLIGENCE

CIEP
COUNTERINTELLIGENCE EQUIPMENT PROGRAM

CINC
COMMANDER-IN-CHIEF

CINCLANTFLT
COMMANDER-IN-CHIEF ATLANTIC FLEET

CINCPACFLT
COMMANDER-IN-CHIEF PACIFIC FLEET

CITS
COUNTERINTELLIGENCE TEAMS

CMC
COMMANDANT OF THE MARINE CORPS

COEA
COST AND OPERATIONAL EFFECTIVENESS ANALYSIS

COMINT
COMMUNICATIONS INTELLIGENCE

COMSEC
COMMUNICATIONS SECURITY

CONUS
CONTINENTAL UNITED STATES

CP
COMMAND POST

CPA
CHAIRMAN'S PROGRAM ASSESSMENT

CSSE
COMBAT SERVICE SUPPORT ELEMENT

CV
CARGO VARIANT

CVBG
CARRIER BATTLE GROUP

DAB
DEFENSE ACQUISITION BOARD

DASC
DIRECT AIR SUPPORT CENTER

DCS
DEFENSE COMMUNICATIONS SYSTEM

DC/S
DEPUTY CHIEF OF STAFF

DE
DIRECTED ENERGY

DEMVAL
DEMONSTRATION AND VALIDATION

DF
DIRECTION FINDING

DNCPPG
DEPARTMENT OF THE NAVY CONSOLIDATED PLANNING AND PROGRAMMING GUIDANCE

DP
DUAL PURPOSE

DPG
DEFENSE PLANNING GUIDANCE

DoD
DEPARTMENT OF DEFENSE

DON
DEPARTMENT OF THE NAVY

DPRB
DEFENSE PLANNING AND RESOURCES BOARD

DT
DEVELOPMENTAL TEST

DWT
DIVISION WING TEAM

ECCM
ELECTRONIC COUNTER-COUNTERMEASURES

ECM
ELECTRONIC COUNTERMEASURES

ECO
ELINT COLLECTION OUTSTATION

EDM
ENGINEERING DEVELOPMENT MODEL

ELINT
ELECTRONIC INTELLIGENCE

EMI
ELECTRO-MAGNETIC INTERFERENCE

EO
ELECTRO-OPTICAL

EOB
ELECTRONIC ORDER OF BATTLE

ESS
ELECTRONIC INTELLIGENCE (ELINT) SUPPORT SYSTEM

EW ELECTRONIC WARFARE	GPS GLOBAL POSITIONING SYSTEM
FAC FORWARD AIR CONTROLLER	HARM HOMING ANTIRADIATION MISSILE
FAST FLEET ANTITERRORISM SECURITY TEAM	HEAA HIGH EXPLOSIVE ANTIARMOR
FAT FIRST ARTICLE TESTING	HEAT HIGH EXPLOSIVE ANTITANK
FDC FIRE DIRECTION CENTER	HEAT-MP-T HEAT-MULTI-PURPOSE-TRACER
FEBA FORWARD EDGE OF THE BATTLE AREA	HEDP HIGH EXPLOSIVE, DUAL PURPOSE
FHN&MC FAMILY HOUSING, NAVY AND MARINE CORPS	HMMWV HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE
FIE FLY-IN ECHELON	HOW HOWITZER
FLIR FORWARD LOOKING INFRARED	HP HORSEPOWER
FMF FLEET MARINE FORCE	HQ HAVE QUICK
FMFLANT FLEET MARINE FORCE, ATLANTIC	HQMC HEADQUARTERS MARINE CORPS
FMFPAC FLEET MARINE FORCE, PACIFIC	HUMINT HUMAN INTELLIGENCE
FSCC FIRE SUPPORT COORDINATION CENTER	IAC INTELLIGENCE ANALYSIS CENTER
FSD FULL SCALE DEVELOPMENT	ICAD INDIVIDUAL CHEMICAL AGENT DETECTOR
FSED FULL SCALE ENGINEERING DEVELOPMENT	ICM IMPROVED CONVENTIONAL MUNITIONS
FSSG FORCE SERVICE SUPPORT GROUP	IFF IDENTIFICATION FRIEND OR FOE
FTS FULL-TIME SUPPORT	ILLUM ILLUMINATION
FYDP FUTURE YEARS DEFENSE PROGRAM	IMA INTERMEDIATE MAINTENANCE ACTIVITY
GCE GROUND COMBAT ELEMENT	IMINT IMAGERY INTELLIGENCE
GP GENERAL PURPOSE	INTEL INTELLIGENCE
GPH GALLONS PER HOUR	IOC INITIAL OPERATING CAPABILITY
GNP GROSS NATIONAL PRODUCT	

IR
INFRARED

IRR
INDIVIDUAL READY RESERVE

ISIS
INTEGRATED SIGNALS INTELLIGENCE
SYSTEM

ISO
INTERNATIONAL STANDARDIZATION
ORGANIZATION

ISOR
INITIAL STATEMENT OF REQUIREMENT

JCS
JOINT CHIEFS OF STAFF

JINTACCS
JOINT INTEROPERABILITY TACTICAL
COMMAND AND CONTROL SYSTEM

JSIP
JOINT SERVICE IMAGERY PROCESSING
SYSTEM

JTIDS
JOINT TACTICAL INFORMATION
DISTRIBUTION SYSTEM

KE
KINETIC ENERGY

KHZ
KILOHERTZ

LAAD
LOW ALTITUDE AIR DEFENSE

LAI
LIGHT ARMORED INFANTRY

LAAM
LIGHT ANTI-AIRCRAFT MISSILE

LAW
LIGHTWEIGHT ANTIARMOR
WEAPON

LAV
LIGHT ARMORED VEHICLE

LCAC
LANDING CRAFT AIR CUSHION

LHD
AMPHIBIOUS ASSAULT SHIP
(MULTI-PURPOSE)

LIC
LOW INTENSITY CONFLICT

LLI
LONG LEAD ITEM

LOB
LINE-OF-BEARING

LPH
LANDING SHIP HELICOPTER

LVS
LOGISTICS VEHICLE SYSTEM

MACCS
MARINE AVIATION COMMAND AND
CONTROL SYSTEM

MAG
MARINE AIRCRAFT GROUP

MAGIS
MARINE AIR-GROUND INTELLIGENCE
SYSTEM

MAGTEC
MARINE AIR-GROUND TRAINING AND
EDUCATION CENTER

MAGTF
MARINE AIR-GROUND TASK
FORCE

MARDIV
MARINE DIVISION

MAW
MARINE AIRCRAFT WING

MAWTS-1
MARINE AVIATION WEAPONS AND
TACTICS SQUADRON-ONE

MBST
MARINE BATTLE SKILLS TRAINING

MBT
MAIN BATTLE TANK

MCAGCC
MARINE CORPS AIR GROUND COMBAT
CENTER

MCAS
MARINE CORPS AIR STATION

MCB
MARINE CORPS BASE

MCCDC
MARINE CORPS COMBAT DEVELOPMENT
COMMAND

MCCP
MARINE CORPS CAMPAIGN PLAN

MCCRES
MARINE CORPS COMBAT READINESS
EVALUATION SYSTEM

MCLB
MARINE CORPS LOGISTICS BASE

MCMWTC
MARINE CORPS MOUNTAIN WARFARE
TRAINING CENTER

MCON
MILITARY CONSTRUCTION, NAVY
RESERVE

MCNR
MILITARY CONSTRUCTION, NAVY
RESERVE

MCRDAC
MARINE CORPS RESEARCH,
DEVELOPMENT, AND ACQUISITION
COMMAND

MCSF
MARINE CORPS SECURITY FORCES

MEB
MARINE EXPEDITIONARY BRIGADE

MEF
MARINE EXPEDITIONARY FORCE

MEU
MARINE EXPEDITIONARY UNIT

MEU(SOC)
MARINE EXPEDITIONARY UNIT
(SPECIAL OPERATIONS CAPABLE)

MILES
MULTIPLE INTEGRATED LASER
ENGAGEMENT SYSTEM

MLR
MEDIUM LIFT REPLACEMENT

MLRP
MARINE CORPS LONG RANGE PLAN

MMP
MAGTF MASTER PLAN

MORDT
MOBILIZATION OPERATIONAL
READINESS DEPLOYMENT TEST

MOS
MILITARY OCCUPATIONAL SPECIALTY

MOUT
MILITARY OPERATIONS IN URBAN
TERRAIN

MPF
MARITIME PREPOSITIONING FORCE

MPMC
MILITARY PERSONNEL, MARINE CORPS

MPN
MILITARY PERSONNEL, NAVY

MPS
MARITIME PREPOSITIONING SHIPS

MSC
MILITARY SEALIFT COMMAND

MTCCS
MARINE TACTICAL COMMAND AND
CONTROL SYSTEM

NALMEB
NORWAY AIR-LANDED MEB

NATO
NORTH ATLANTIC TREATY
ORGANIZATION

NBC
NUCLEAR, BIOLOGICAL AND CHEMICAL

NBCRS
NBC RECONNAISSANCE SYSTEM

NCA
NATIONAL COMMAND AUTHORITY

NCO
NONCOMMISSIONED OFFICER

NDI
NON-DEVELOPMENTAL ITEM

NIPS
NAVAL INTELLIGENCE PROCESSING
SYSTEM

NSE
NAVY SUPPORT ELEMENT

NSF
NAVY STOCK FUND

NTS
NAVAL TELECOMMUNICATIONS SYSTEM

O&MMC
OPERATION AND MAINTENANCE,
MARINE CORPS

O&MMCR
OPERATION AND MAINTENANCE,
MARINE CORPS RESERVE

O&MN
OPERATION AND MAINTENANCE, NAVY

O&MNR
OPERATION AND MAINTENANCE, NAVY
RESERVE

OPEVAL
OPERATIONAL EVALUATION

OPN
OTHER PROCUREMENT, NAVY

OSD
OFFICE OF THE SECRETARY OF DEFENSE

OT
OPERATIONAL TESTING

OT&E
OPERATIONAL TEST AND EVALUATION

OTH
OVER THE HORIZON

PAA
PROGRAMMED AIRCRAFT
AUTHORIZATION

PCS
PORTABLE COLLECTIVE PROTECTION
SYSTEM

PCS
PORTABLE CONTROL STATION

PDA
PRINCIPAL DESIGN ACTIVITY

PIP
PRODUCT IMPROVEMENT PROGRAM

PLRS
POSITION LOCATION REPORTING
SYSTEM

PMC
PROCUREMENT, MARINE CORPS

PME
PROFESSIONAL MILITARY EDUCATION

PMS
PEDESTAL MOUNTED STINGER

POM
PROGRAM OBJECTIVE MEMORANDUM

PPBS
PLANNING, PROGRAMMING AND
BUDGETING SYSTEM

PP&O
PLANS, POLICIES AND OPERATIONS

QOL
QUALITY OF LIFE

R&D
RESEARCH AND DEVELOPMENT

RB
RED BAG

R/DF
REPRODUCTION/DISTRIBUTION FACILITY

RDT&EN
RESEARCH, DEVELOPMENT, TEST AND
EVALUATION NAVY

RF
RADIO FREQUENCY

ROC
REQUIRED OPERATIONAL CAPABILITY

RO/RO
ROLL-ON/ROLL-OFF

RPMC
RESERVE PERSONNEL, MARINE CORPS

RPN
RESERVE PERSONNEL, NAVY

RPV
REMOTELY PILOTED VEHICLE

RRC
RIGID RAIDER CRAFT

RRF
READY RESERVE FLEET

SAR
SEARCH AND RESCUE

SATCOM
SATELLITE COMMUNICATIONS

SCN
SHIPBUILDING AND CONVERSION, NAVY

SCRE
STRATIFIED CHARGE ROTARY ENGINE

SE
SUPPORTING ESTABLISHMENT

SEAL
SEA-AIR-LAND

SEMP
SUPPORTING ESTABLISHMENT MASTER
PLAN

SECDEF
SECRETARY OF DEFENSE

SECNAV
SECRETARY OF THE NAVY

SHF SUPER HIGH FREQUENCY	TAOM TACTICAL AIR OPERATIONS MODULE
SIGINT SIGNALS INTELLIGENCE	TADIL-J TACTICAL DIGITAL INFORMATION LINK-J
SINCGARS SINGLE CHANNEL GROUND AND AIRBORNE RADIO SYSTEM	TAH HOSPITAL SHIP
SIXCONS FUEL/WATER STORAGE AND PUMP MODULES	TAVB AVIATION LOGISTICS SUPPORT SHIP
SLAR SIDE LOOKING AIRBORNE RADAR	TBD TO BE DETERMINED
SLEP SERVICE LIFE EXTENSION PROGRAM	TCC TACTICAL COMMUNICATIONS CENTER
SLOC SEA LINES OF COMMUNICATION	TCO TACTICAL COMBAT OPERATIONS
SMAW SHOULDER-LAUNCHED MULTIPURPOSE ASSAULT WEAPON	T/E TABLE OF EQUIPMENT
SMCR SELECTED MARINE CORPS RESERVE	TERPES TACTICAL ELECTRONIC RECONNAISSANCE PROCESSING AND EVALUATION SYSTEM
SMK SMOKE	TOA TOTAL OBLIGATIONAL AUTHORITY
SOC SPECIAL OPERATIONS CAPABLE	TOW TUBE-LAUNCHED, WIRE-GUIDED, OPTICALLY-TRACKED MISSILE
SOI SCHOOL OF INFANTRY	TPCS TEAM PORTABLE COMMUNICATIONS INTELLIGENCE SYSTEM
SP SELF PROPELLED	UHF ULTRA HIGH FREQUENCY
SPEED SYSTEMS PLANNING, ENGINEERING, AND EVALUATION DEVICE	ULCS UNIT LEVEL CIRCUIT SWITCH
SRI SURVEILLANCE, RECONNAISSANCE, AND INTELLIGENCE	VHF VERY HIGH FREQUENCY
SRAW SHORT RANGE ANTI-TANK WEAPON	V/STOL VERTICAL SHORT TAKE OFF AND LANDING
TACAIR TACTICAL AIR	WB WHITE BAG
TACC TACTICAL AIR COMMAND CENTER	WP WHITE PHOSPHOROUS
TACDM TACTICAL DECISION MAKING	WPN WEAPONS PROCUREMENT, NAVY

WITHDRAWN

